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Bird Seed are happy,—
and sing about it.

ANIMALS and their AILMENTS

A monthly magazine devoted to all domestic animals, poultry and bees, their breeding and management in health and sickness.

ANIMALS and their AILMENTS

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POPULAR CAGE BIRDS

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CANARIES : AND HOW TO KEEP
THEM

F. J. S. CHATTERTON

MODERN PIG KEEPING

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THEM

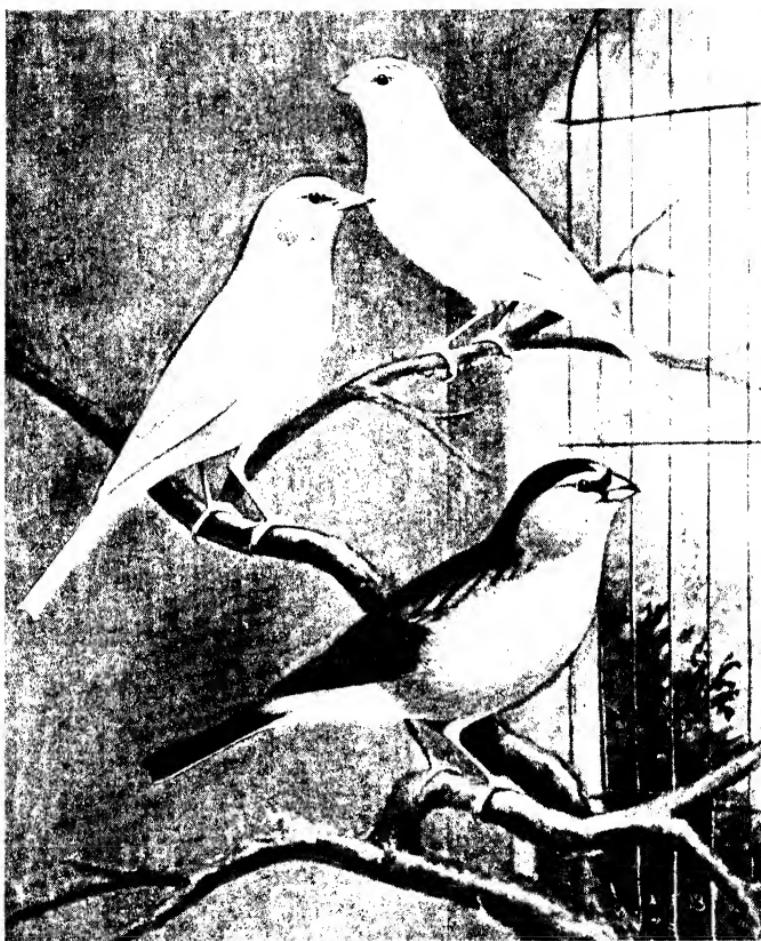
ROSSLYN MANNERING

DUCKS AND GEESE : AND HOW TO
KEEP THEM

F. J. S. CHATTERTON

PRACTICAL RABBIT-KEEPING

GEO. A. TOWNSEND



CLEAR YELLOW GOLDEN MULE TICKED BLACK LINNET MULE

YELLOW CANARY-BULLFINCH MULE

CANARY MULES

Popular Cage Birds

By John Robson

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With Numerous Illustrations

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Foreword

THIS work is intended primarily to assist the many thousands who keep birds chiefly as pets, but it is hoped that it will also not be unhelpful to those who are interested in breeding and exhibiting them.

The enormous development in recent years of this branch of aviculture among all classes of the community is marvellous, though it is not surprising when one thinks of the pleasure these birds afford ; of the wonderful achievement in getting many to breed in captivity, and the fact that it is possible to keep many in the best of health and condition in cage or aviary—a matter which was thought impossible but a few years ago.

With a view to assisting further that interest, I have given brief but practical details on the feeding and breeding of many of the hybrids for the benefit of those who desire to breed their own specimens ; also details as to the best and most suitable foods for the various British and foreign birds dealt with, as well as suitable cages in which to keep or exhibit them.

I am a firm believer in the value of exhibitions, as they necessitate strict care and the best of attention being given to our pets to keep them in the good

FOREWORD

health and perfect condition of plumage that are necessary to win a prize; consequently they are a real benefit to the birds' well-being.

It was impossible in the space at my command to deal with all varieties and species, and I have therefore given greater attention to the birds most suitable for cage and aviary life, not from a theoretical point of view, but from knowledge gained by actual experience.

JOHN ROBSON

Contents

	PAGE
FOREWORD	v
PART I.—HYBRIDS	
CHAPTER	
1. BRITISH FINCH AND CANARY HYBRIDS	I
2. HYBRIDS BETWEEN TWO BRITISH BIRDS	II
PART II.—BRITISH BIRDS IN CAGE AND AVIARY	
3. THRUSHES AND THRUSH-LIKE BIRDS	26
4. WARBLERS, ACCENTORS, ETC.	46
5. TITS, WRENS, WAGTAILS, PIPITS, AND SHRIKES	55
6. THE FINCHES—FAMILY <i>Fringillidæ</i>	64
7. STARLINGS, CROWS, LARKS, WOODPECKERS, ETC.	78
PART III.—SOME POPULAR FOREIGN BIRDS	
8. INSECTIVOROUS, FRUIT- AND NECTAR-EATING BIRDS	84
9. SMALL SEED-EATING FOREIGN BIRDS	89
10. CAGES, AVIARIES, AND UTENSILS	97
INDEX	109

Illustrations in Text

	PAGE
ZINC BATH	25
SINGLE BOX BREEDING CAGE WITH WIRE FRONT AND FITTINGS	45
DOUBLE SEED-HOPPER	54
SMALL OUTDOOR AVIARY	63
SELF-SUPPLYING SEED-HOPPER	77
LARK SHOW-CAGE	83
OPEN TOP ROUND GLASS DRINKING VESSEL	99
HYGIENIC GLASS WATER VESSEL FOR USE IN AVIARIES	106
WIRE RACK FOR BUILDING MATERIAL	107
WHITE EARTHENWARE BASIN FOR BATH CAGES . .	107
EARTHENWARE EGG-FOOD DRAWER	108

POPULAR CAGE BIRDS

PART I.—HYBRIDS

CHAPTER I

BRITISH FINCH AND CANARY HYBRIDS

HYBRID breeding is one of the most fascinating cage-bird hobbies owing to the uncertainty of the results. It is a common occurrence for a beginner in his first year to achieve by a fluke, or luck—whichever one has a mind to call it—something which an old breeder has been trying unsuccessfully to accomplish for many years. This is not difficult to understand when we consider that we are endeavouring to bring together, for fruitful purposes, birds of entirely different temperament and habit. The fact that the unexpected often happens does not lessen but rather increases the interest.

The Goldfinch-Canary.—Undoubtedly the most popular hybrid, though not always the most valuable, is the goldfinch-canary ; that is, the hybrid produced from a cock goldfinch and a hen canary. Its popularity is largely due to its perky, happy-go-lucky nature, bright disposition and cheerful song. The happy blending of the colours of the parents also adds to its attractiveness. Whether it be a light-coloured bird, taking more to the canary, or dark coloured, favouring the finch, both have a happy blending of bright colours and a rich orange coloured

POPULAR CAGE BIRDS

face, shading to red, though the latter is not so pronounced as in the goldfinch.

Of course, birds of extreme colour are the most valuable from an exhibition point of view ; that is to say, the bird that is clear or nearly so—like a canary—a clear hybrid being the highest state of perfection as a show specimen ; or the bird that is all dark, without a light feather on any part, be it yellow or buff. Yellow is preferable, as birds of that colour are rarer than the buffs.

In this hybrid we get various degrees of marking, as well as almost clear or almost dark birds ; some have just a patch of dark with the rest of the plumage clear, and others beautifully balanced eye and wing markings, with the rest of the body clear. Others, again, are what are called “heavily variegated” ; that is to say, with patches of dark colour distributed over the body. The cock birds of this description, though not so valuable as those described for exhibition, are quite as valuable as pets and are equally good songsters.

Feeding.—As to diet, these hybrids do well on a seed mixture of three parts canary seed, one part linseed, one part summer rape, and just a pinch of hemp, with a little seasonable green food, two or three times a week. This may be a small spray of watercress, a young leaf of dandelion, or two or three sprays of seedy chickweed ; the white flowering seed-heads of the dandelion are greatly enjoyed, and three or four per day may be given whenever they are procurable, fixed between the wires of the cage. The seeds are in the sockets below the white fluff, which should be cut off to avoid the untidiness of its dis-

BRITISH FINCH AND CANARY HYBRIDS

persal. A spray of shepherd's purse or a seed-stalk of plantain—just becoming a rich pinky-red colour—are also good. Occasionally, say once or twice a week, half a teaspoonful of egg-food or other soft food should be given.

This method of feeding will keep these birds in the best of health and condition. Those intended for exhibition during the moulting season must have colour food in addition. Vendors of colour foods supply instructions as to their use.

Breeding.—The breeding of these hybrids has great fascination, and the cock goldfinch in the spring—say April—will pair up quite freely with a hen canary. A yellow Norwich hen is preferable, as from this variety a richer coloured hybrid is produced. Both birds must be in good health and condition when paired up, the finch in full song and if the black streak on the tip of his beak has disappeared so much the better, as this indicates breeding condition.

When paired up the seed diet should be the same as for the hybrid, with an extra pinch of hemp seed and a little teazle seed added, also a free supply of fresh-gathered wild seed-heads of dandelion, shepherd's purse, chickweed, knapweed, thistle, and plantain; in fact, scarcely any wild seed-heads come amiss at this period, and all assist in bringing and keeping the finch in breeding condition, and they will not harm the canary. If these wild seed-heads are not procurable a liberal supply of green food, such as recommended for the hybrids, should be given. A half-teaspoonful of egg-food, with a pinch of maw seed, should be given every other day in a separate earthenware vessel, until the hen has laid and

POPULAR CAGE BIRDS

commenced to sit, when it should be stopped until the young are due to hatch ; it should then be resumed and given daily in quantities as for young canaries.

The young hybrids should be treated similarly to young canaries until they are well on to hard seed, when they should be gradually weaned on to the diet given for adult hybrids.

Sometimes the cock goldfinch is rather troublesome, especially if in very high condition, pulling the nest to pieces and breaking the eggs. Should this occur he must be removed to a separate cage ; the hen will sit, hatch, and rear the brood by herself. When she is ready to go to nest again, the goldfinch can be returned until she has laid and commenced to sit and then again be removed.

The Linnet-Canary.—The linnet-canary hybrid is of a much more sombre colour than the goldfinch-canary, owing to the linnet sire being of much plainer colour than the goldie. But what the linnet hybrid lacks in colour he certainly makes up for in song, as the cock birds are most charming songsters, with a happy blending of the notes of both parents. In this hybrid there are light and dark coloured specimens as in the previous hybrid. The general colour of the dark specimens is a brownish shade with darker stripings, much after the colour of the linnet, while on the breast there is intermingled a rich tint of canary yellow. As in the goldfinch hybrid, the extreme coloured birds are the best for exhibition purposes—that is, those that are clear or almost clear, or all dark. Those not suitable for exhibition make just as charming pets for the home, where song is the chief object desired.

BRITISH FINCH AND CANARY HYBRIDS

Feeding and Breeding.—These birds should be fed on a seed mixture of three parts canary, one part linseed, and one part summer rape, with a half-teaspoonful of egg-food, or good patent egg-food, once a week, together with green food and wild seeds in season, as for the goldfinch hybrid.

The breeding of these hybrids is not at all a difficult matter, as the cock linnet pairs quite freely with the hen canary. Here, again, a yellow hen should be selected, as by such pairing we get more attractive hybrids, with richer colour, be they yellow or buff.

April is quite early enough to pair the linnet and canary, and naturally both should be in good, healthy condition, the hen full of life and vigour and the linnet in full song. The seed mixture for the pair of birds should be three parts canary seed, two parts summer rape, and one part linseed, with the green food, wild seeds, and egg-food recommended for the goldfinch and canary.

It is very rarely that a linnet interferes with the nest or eggs, but should he attempt to do so he must be treated as advised with the goldfinch.

Greenfinch - Canary.—The greenfinch-canary is another very interesting hybrid, of a much richer colour and handsomer than the linnet hybrid ; the rich olive yellow-green shade of plumage of the finch is transmitted and adds lustre to the offspring.

This hybrid, though not quite such a fluent songster as those previously mentioned, is quite a free singer, and many of its notes—which are cut somewhat short, like those of its sire—have a not unpleasing effect.

In colour it is quite as rich as the canary, the

POPULAR CAGE BIRDS

clear and variegated birds taking largely to this bird, owing to the greenfinch having such a large amount of yellow pigment in it, while the dark specimens have the greenfinch shade of colour. In shape and size this hybrid is similar to the canary, but without exception there is always the outline of the greenfinch head and beak, even if it be an absolutely clear bird like a canary—of which there have been quite a number bred—which settles beyond dispute the parentage of a true clear-coloured hybrid of this cross. In variegated or dark specimens, there is always a tint of the greenfinch colour in the dark patches. This hybrid is of a very docile temperament, and is not quite so lively as the goldfinch-canary or linnet-canary hybrids.

Feeding and Breeding.—It does well on the same ordinary or colour-feed diet as the goldfinch hybrid. The greenfinch, when in good condition, pairs quite freely with the hen canary, though when first introduced some are a little boisterous and quarrelsome ; they soon settle down, however, and follow their mate about the cage, wanting to feed her. If there are little differences at the first the birds need not be separated unless the cock is too ferocious, when it may be necessary to part them for a few days. In such cases a double cage with a wire partition is useful, as the birds, although separated, can see each other. This point will be dealt with further in the chapter on cages. There are two methods of pairing to produce this hybrid : by pairing a cock greenfinch to a yellow Norwich hen canary ; or a yellow Norwich cock to a hen greenfinch. The greenfinch hen is a good sitter, and will rear her own brood, but I should

BRITISH FINCH AND CANARY HYBRIDS

advise the beginner to adopt the first method. It is preferable to select a yellow Norwich hen, as from this breed hybrids of a better shape and colour are obtained.

When paired up for breeding the food should be the same as for the hybrid, adding to the seed diet just a pinch of oats. A green caterpillar, such as are found on cabbage and other vegetables, is much appreciated by the greenfinch. When the young are hatched egg-food should be supplied daily, and the youngsters afterwards gradually weaned on to the adult hybrid diet.

Siskin-Canary.—The siskin-canary hybrid is a very attractive bird, though much smaller than those previously mentioned. It is very lively in disposition, perky and proud in movement, as if the world belonged to it. The clear and variegated specimens are quite as rich in colour as a yellow or buff canary; the dark are of a rich yellowish green, heavily marked with darker stripes. In many instances there is a blackish cap on the top of the head, generally more pronounced on a yellow than a buff. The cock birds are incessant songsters. Their song is interspersed with quite a number of twittering notes throughout, and their cheerful disposition makes them most attractive pets. The clear-coloured, and the all-dark specimens, are excellent birds for exhibition purposes.

Feeding and Breeding.—The diet recommended for the linnet-canary suits these birds well. They are sometimes inclined to put on fat quickly, and in this case the little soft food should be stopped for a short time until they appear normal again.

This is another hybrid which is not at all difficult

POPULAR CAGE BIRDS

to breed, as the cock siskin pairs quite freely to the canary. Again a yellow Norwich hen is preferable, but as the siskin is a small bird a medium-sized hen should be chosen, not a large one. A yellow Norwich cock can be paired to a siskin hen, but the former method of pairing is the usual one adopted.

The siskin has a voracious appetite and must be carefully fed, otherwise he quickly gets too fat ; this is not good for his health and destroys his smart, prim appearance, besides affecting his breeding capabilities. He is also inclined to be rather mischievous, pulling the nest about and interfering with the eggs, and for this reason it is advisable to remove him to a separate cage when the hen has laid and commenced to sit. The hen will rear the brood alone. When she is ready to go to nest again the siskin may be returned to her.

While the pair of birds are together the diet should consist of canary seed three parts, one part summer rape, half part linseed and half part teazle, with green food, wild seed-heads, and egg-food as for the previous pairs. While the hen is rearing the young a little hemp should be added to her seed mixture daily, as well as the egg-food, until the young can feed themselves, which they can do well when four weeks old.

Redpoll-Canary and Twite-Canary.—The redpoll-canary hybrid is not attractive in colour, as its chief colour is light brown with darker streaks ; a few variegated specimens have been produced—I have exhibited them myself—but even they are not very attractive. Its song is very poor, and altogether it is not a bird I can recommend as a pet. The same

BRITISH FINCH AND CANARY HYBRIDS

remark applies to the twite-canary hybrid, for it, too, is very sombre in colour—a deep brown with blackish streaks merging into a buff shade on the under parts of the body.

These two hybrids are bred chiefly for exhibition purposes ; and song-power does not count in these competitions. Both varieties do well on the same diet as that recommended for the linnet-canary, and in breeding them they should be treated similarly to that pair.

Canary - Bullfinch.—The canary-bullfinch hybrid is among the most beautiful in colour. Its bluish slate-grey back, streaked with darker shading, black wings with light grey bars across, dark crown of the head, almost black, and the rich rufous coloured—almost verging on vermillion—band over the forehead, running on to the cheeks and covering the entire breast, presents a striking, happy contrast, and gives the bird a most attractive appearance. Its size is quite equal to a good-sized canary, and the male birds are most fluent songsters, the flute-like notes being deep and full of melody. They make charming pets, as well as being among the first-class exhibition birds.

Feeding and Breeding.—Their seed diet should be three parts canary seed, one part linseed, one part sunflower seed, half-part summer rape and half-part teazle seed, with green food and wild seed-heads as for other hybrids. There should also be included a free supply of seed-stalks of dock, just as they are beginning to turn a reddish shade, and a little egg-food. An occasional meal-worm is also enjoyed.

This hybrid is more difficult to breed than any

POPULAR CAGE BIRDS

yet dealt with. Up to the present all authentic specimens have been bred by pairing a cock canary to a hen bullfinch. It is said they have been bred from the cock bullfinch and hen canary, but there is no reliable proof of this, and from long personal experience I should strongly recommend the would-be breeder of this hybrid to devote his attention to pairing a Norwich cock canary to a hen bullfinch.

If the hen bullfinch has been hand-reared from the nest, the chance of success is much greater, though many bullfinches captured in the adult stage have bred quite freely in a cage, especially after they have been moulted one season in captivity. It is advisable not to allow the hen bullfinch to sit her eggs; they should be given to a hen canary to hatch and rear, as it is more reliable. The hen bullfinch should be given some dummy eggs to sit on for the period of incubation.

The hen canary should be supplied with seed and egg-food just as if she were rearing her own brood; but green food should be given a little more freely.

The pair of birds—the cock canary and hen bullfinch—when paired up should be fed as recommended for the adult hybrid, giving a little egg-food every other day, and a meal-worm, for the benefit of the bullfinch, on the alternate days; a liberal supply of buds from fruit trees, bushes, or the hawthorn should be given in addition to the wild seed-heads and other green food. These all assist to bring the finch into breeding condition.

CHAPTER II

HYBRIDS BETWEEN TWO BRITISH BIRDS

Goldfinch-Bullfinch.—The goldfinch-bullfinch is among the most beautiful of our hybrids, bred from two different species of British birds; the blending of bright rich colours is almost indescribable. It has the rich red face of the goldfinch, increased in size, blended with the bright red breast of the bullfinch, though this is not extended quite so low down the breast, nor of quite such a vermillion tint. The black collar round the back of the head, running down the sides of the neck, with the back and sides of the breast a rich chocolate brown take after the goldfinch, while the wings are black like the bullfinch, with an inter-mixture of the goldfinch yellow, and slatish-grey bars of the bullfinch across them, the whole making the bird most attractive in appearance.

It is a fluent songster, with a pleasant blending of goldfinch and bullfinch notes, and in temperament is a happy combination of both parents, and makes a charming pet. In size it is similar to a canary. It is really too valuable and handsome to keep as a pet only, and should be used for the dual purpose of pet and exhibition bird, as a well-coloured specimen, in good condition, will always gain some honour at our exhibitions.

Feeding and Breeding.—These birds do well on a seed mixture of three parts canary seed, one part

POPULAR CAGE BIRDS

linseed, one part sunflower, half part summer rape, and just a pinch of hemp. Green food and wild seed-heads should be given as for other hybrids, not forgetting a seed-head of burdock whenever procurable and a meal-worm say twice a week at intervals of two or three days. A small bunch of ripe privet berries or a few ripe blackberries are most beneficial to their health and condition, and also enrich their colour if given throughout the moult. They must also have a little soft food and colour food daily until the moult is completed.

It cannot be said that this hybrid is easy to breed, for the bullfinch is not such a free breeder in captivity as the goldfinch. It is always advisable to use the hen bullfinch in preference to the cock, as the former is more amenable to captivity conditions. In fact, we have no authentic record of the cock bullfinch breeding in captivity, except in an aviary with his own species, whereas the hen has bred both in cage and aviary with other species. The great secret in the successful production of these hybrids is having the cock goldfinch and hen bullfinch of agreeable temperament with each other, and the most important point is getting them both in good breeding condition, as this prevents much quarrelling when paired up. Needless to say, careful feeding plays an all-important part in securing this condition.

April is quite time enough to pair up, and only then providing both birds are in good condition with the goldfinch singing lustily. If the dark streak has disappeared from the tip of his beak, so much the better, as this denotes that he is in breeding condition. When paired, the seed diet should be similar to that

HYBRIDS BETWEEN TWO BRITISH BIRDS

for the hybrid, giving the little egg-food daily. If a few sunflower seeds in their almost ripe, succulent state can be procured, they have a wonderful effect in assisting the breeding process, as will also the almost ripe seed-heads of lettuce.

The hen bullfinch must not be trusted with the eggs to sit, hatch, and rear the brood, as she is not a reliable mother in captivity and often destroys her eggs. Her clutch should be placed under a sitting hen canary, removing the latter's own eggs and giving her the bullfinch's to sit, hatch, and rear. The canary's eggs can be given to the bullfinch to see if she will hatch and rear them, but her own are too valuable to be risked with her. An abundance of fresh buds from fruit trees, bushes, and the hawthorn should be given, as the hen "bullie" devours these with avidity, and they are most beneficial to her.

Greenfinch - Bullfinch. — The greenfinch - bullfinch is another most handsome hybrid, almost equal in colour to the one just described, except that it has not the rich blaze or face. The back is a slaty greenish-grey tint, the top of the head blackish-grey, wings black with a greenish tinted light bar across them, the whole of the breast and round the forehead and cheeks a lovely tint or blending of rich rufous colour, giving to the bird a most charming, attractive appearance. In size and temperament it is much like the goldfinch-bullfinch. It is a free songster, with notes somewhat similar to the goldfinch-bullfinch, and it does well on the same diet as that hybrid. It is a delightful pet, and ranks equal with the goldfinch-bullfinch as an exhibition bird. It is quite as easily bred as that bird, if the cock green-

POPULAR CAGE BIRDS

finch is paired to the hen bullfinch and treated in the same manner. The birds also do well on a similar diet when paired, though sunflower seed can be given a little more freely, and an occasional meal-worm. They may be paired up about April.

Linnet - Bullfinch. — The linnet-bullfinch hybrid is another charming bird for colour. A striking feature in all hybrids of which the bullfinch is one of the parents is that the male hybrids put on the vermillion-coloured breast of the bullfinch in either pronounced or subdued form, while the breast of the hen without exception is vinous chocolate. In many of the linnet-bullfinch hybrids the crimson tint is very pronounced, which may be accounted for by the fact that the linnet in its wild state has a flush of crimson on the forehead and breast, and when this colour is present in both parents it is only to be expected to develop to an intensified degree in the offspring. In addition to this lovely rich breast colour, the head, and down the neck and back, is reddish brown, with a tint of slaty grey; the forehead is just touched with crimson, the sides of the neck slaty grey, the wings and tail black, the outer web of the wing feathers has a shading of grey, and the abdomen is buff. The whole has a happy blending, and presents us with a very attractive bird.

This hybrid is similar in size to the bullfinch, but has a little finer head, thus taking more to the linnet in this respect, and has a blending of the two in regard to the beak. It is of bright, active movements, and a fluent songster, the notes being a blending of both parents, with no harshness. It makes a splendid pet and an equally good bird for exhibition.

HYBRIDS BETWEEN TWO BRITISH BIRDS

Feeding and Breeding.—It does well on a seed diet of one half canary seed, the other half composed of equal parts linseed, teazle, rape, and sunflower seeds, with just a pinch of hemp added; green food, wild seed-heads, and the little egg-food as for other hybrids, with the colour food during the moult.

A fair number of this hybrid have been bred, but it is by no means common. In attempting to produce it, it is always better to use the cock linnet and hen bullfinch; the larger and richer the colour of the two birds, the larger and handsomer will the hybrids be. Care should be taken to select birds that are steady and of kindly temperament. They will do well on a diet similar to that recommended for the hybrid, with the egg-food given daily in small quantities and an occasional meal-worm for the benefit of the hen "bullie," as well as the fruit-tree buds, if procurable. The birds should be paired in the early part of April if both birds appear in good breeding condition. In this case also the eggs must be transferred to a hen canary, feeding her, just as if she were rearing canaries, with seed and egg-food, but giving the green food more freely than if she were rearing her own young.

Redpoll-Bullfinch.—The redpoll-bullfinch hybrid, though a little smaller than those already dealt with, is an equally brilliant coloured bird; if anything, the breast colour is just a little intensified in vermillion tint, the sides are streaked with the dark redpoll colour, the back a blending of the slaty bluish grey of the bullfinch, and the rufous brown with darker streaks of the redpoll. There is also a tendency to display, in a subdued degree, the shading

POPULAR CAGE BIRDS

of the cap and bib of the bullfinch ; the tail and flights are a blending of both parents. In shape it decidedly favours the redpoll and also in the outline of the head, though the beak is a blending of both parents. Its gorgeous plumage, beautiful outline, cheerful temperament and active movements have a fascination which appeals to all. Though it is not quite such a fluent songster as the previous crosses, it still has quite a nice song. A good specimen, rich in colour, is among the most successful of our exhibition hybrids, partly owing to its being somewhat more difficult to breed than some of those dealt with.

Feeding and Breeding.—The diet should be canary seed three parts, with one part linseed, one part summer rape, and one part sunflower seed ; green food, wild seed-heads, and little egg-food as for other hybrids where the bullfinch is one of the parents. In the late summer wasp grubs, taken from the comb of the nest, are much enjoyed and, given in moderation, are very beneficial.

In breeding this hybrid it is better to use the cock redpoll and hen bullfinch, not selecting too large a bullfinch, as the redpoll, being a small bird, has some difficulty in fertilizing the eggs if paired to a large hen.

The latter end of April is quite early enough to pair up. The birds should be fed as the hybrid, except that a little more sunflower seed and the egg-food in small quantities daily should be given until the hen has laid her full clutch of eggs, when it should be discontinued until she is going to nest again. The occasional meal-worm and few fruit buds will all help in the achievement of success. The eggs

HYBRIDS BETWEEN TWO BRITISH BIRDS

must be transferred to a hen canary for the same reason as in other crosses.

Goldfinch - Greenfinch.—The goldfinch - greenfinch is a very different bird from those already described, both in temperament and colour, but is a most interesting hybrid, a charming pet—as he has quite a good song—and a useful exhibition bird. In size and shape it takes largely to the greenfinch, and the body colour is similar in shade to that bird's, except that there is more yellow in the wing bars. They all have the goldfinch face, but it is a hazel-nut shade, instead of crimson; the beak is strong, like that of the greenfinch, but a little longer and more finely pointed. They do well on the same diet as the goldfinch-bullfinch, and breeding pairs may be fed and treated similarly to the goldfinch-bullfinch breeding pairs. April is quite early enough to pair them up.

Goldfinch-Siskin.—The goldfinch-siskin hybrid is a bird quite different in character from those previously mentioned, smaller and more active. It is beautiful in colour, having the reddish face of the goldfinch, though of a more hazel shade; the body colour is a blending of yellowish green, with dark stripes on the back and flanks, wings dark with yellow bars across, the tail also dark, with yellowish fringe to the outer web as in the wings. Altogether its colouring appeals to most people, and its perky, cheerful ways make it a general favourite. It also has a very lively song, a combination of the short sharp notes of both parents. Quite a number of these hybrids were bred some years ago, but of late we have only seen casual birds; they are, however, certainly a

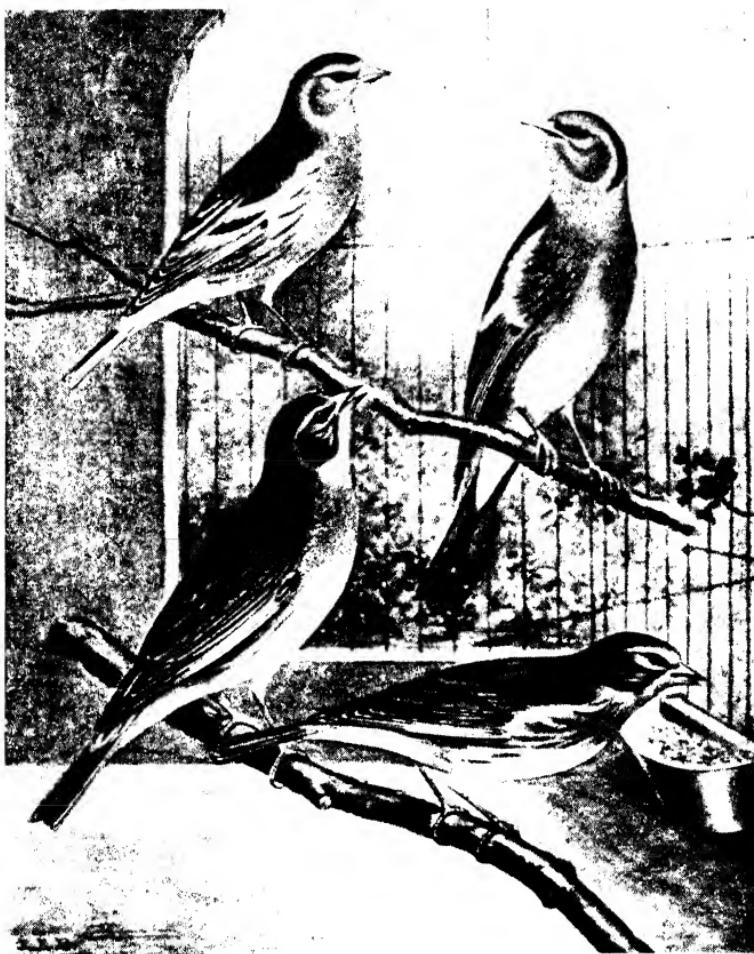
POPULAR CAGE BIRDS

hybrid worthy of breeding either as pets or for exhibition.

Feeding and Breeding.—A most suitable diet is three parts canary seed, one part linseed, one part rape, one part teazle, and one part niger, with the usual little egg-food, green food, and wild seed-heads. During the late summer and moulting season, if a little of the wild seed of the queen of the meadow is given in its fresh-gathered succulent state, it will be found most beneficial and add much to the lustre of the new plumage. If it is intended to exhibit the birds, they must also be given colour food right through the moult.

These hybrids can be produced by both methods of pairing, that is, a cock goldfinch to a hen siskin, or vice versa, though I think we get a better blending of the colours of the parents by pairing the cock finch to the hen siskin, while the hen siskin breeds more freely in a cage than the goldfinch hen. There are exceptions, but such is the rule. The end of April is quite early enough to pair up. Their seed diet should be the same as for the hybrid, adding a few sunflower seeds and a pinch of hemp, the little egg-food, and an abundance of fresh-gathered wild seed-heads. Some hen siskins will rear their own broods, and others will not; when such is the case, the foster hen canary must be used to rear them.

Redpoll-Goldfinch.—The redpoll-goldfinch hybrid is quite a different kind of hybrid in colour and general characteristics, yet it is a bird not without interest, even to the casual observer. In size it is very little larger than the redpoll, and takes largely after that bird in shape, except that the beak is long



YELLOW SISKIN

YELLOW LINNET

YELLOW GOLDFINCH

BUFF TWITE

DARK CANARY MULES

HYBRIDS BETWEEN TWO BRITISH BIRDS

and slender and pointed like that of the goldfinch. It has the scarlet face of that bird in a subdued form—more hazel than scarlet—the head and back are chocolate brown, with darker stripes ; the wings and tail are a blending of both parents, chiefly dark with a light bar across ; the cheeks, breast, and under-body are buffish grey washed with a faint tint of brown, with a few dark streaks on the sides of the breast. The plumage is not brilliant, but it has a pleasing effect, and the active, perky disposition of the hybrid makes it a great favourite with bird lovers, especially those who keep them for exhibition, for which this bird is chiefly bred, though it has quite a nice little song and is not at all difficult to keep in good health and condition.

Feeding and Breeding.—It does well on a seed diet of canary seed three parts, with one part linseed, one part teazle, one part rape, and a pinch of hemp, with green food and seed-heads as for the other hybrids. Twice a week a small half-teaspoonful of egg-food should be given, and while moulting it should be colour fed, mixing the colour with a little soft food daily.

Either the redpoll cock and goldfinch hen, or the goldfinch cock and redpoll hen can be used in pairing up ; the hybrids seem to be just as good in each case. Good-tempered birds should be selected, and if they are cage moulted the chance of success is much greater. The pair do well on the same seed mixture as the hybrid, with the addition of just a little more hemp and a few sunflower seeds, with the usual egg and green food and wild seed-heads. In this cross some of the hens will rear their young, while others will

POPULAR CAGE BIRDS

not. The breeder must therefore be prepared to transfer the eggs or young, as the case may be, to a canary hen to rear; the feeding, while doing so, should be the same as when rearing young canaries, except that green food should be given more freely.

Goldfinch-Linnet.—The goldfinch-linnet hybrid is a bird bred chiefly for exhibition purposes. It is sombre in colour, taking largely after the linnet; the entire body colour is a nutty brown shade with darker streaks on the back and slighter ones on the flanks. The flight feathers of the wings are dark with the yellow bars of the goldfinch, and the face has also the crimson mark of that bird, though much smaller, some only displaying it on the forehead, and it is not such a brilliant colour. Though the male birds have a nice song it cannot be described as fluent, hence the bird does not appeal greatly as a pet; but a good specimen is fairly successful on the show bench, owing to the rarity of the hybrid; it is much more rare than any yet dealt with.

Feeding and Breeding.—This hybrid does well on a diet similar to that for the redpoll-goldfinch. Those desirous of trying to breed it will stand a better chance of success with a small aviary than with an ordinary cage. The cock goldfinch and hen linnet—or vice versa, for either mating will serve—should be turned into the aviary at the beginning of April, but it will probably be the end of the month before any progress will be seen, or an attempt to nest. The larger and better the colour of the parents, the better the quality of the hybrids will be. The pair should be fed as advised for the redpoll-goldfinch pair. Many of these birds will rear their own young in an

HYBRIDS BETWEEN TWO BRITISH BIRDS

aviary, but should any difficulty be experienced in this respect then the foster hen canary must be resorted to.

Siskin-Greenfinch.—The siskin-greenfinch is quite an interesting little hybrid. I say "little," as he is only barely larger than the siskin, has a slightly larger head, though on the lines of the siskin; the beak, too, favours the siskin, though it is just a little thicker than that bird's. Its colour is a happy blending of that of the parents—a beautiful light shade of green, with a little dark streaking and a darkish shade on the crown of the head—just a semblance of the dark cap of the siskin. The breast and under body are a greenish yellow, shading off to a light buff on the belly and vent. This hybrid is full of life, very like the siskin in its movements and a very free songster, a charming bird either as a pet or for exhibition. It does well on a similar diet to that for the goldfinch-siskin, with just a sunflower seed or two added.

It is not a difficult hybrid to breed. A cock siskin can be paired to a hen greenfinch or vice versa, though, if anything, a larger bird is obtained from the former mating. When breeding the pair may be fed as the goldfinch-siskin, with the addition of a few sunflower seeds. The greenfinch may be given an occasional meal-worm; she may not take it at first, but she should be persuaded to do so, as they are most beneficial while breeding.

Redpoll-Greenfinch.—The redpoll-greenfinch is an interesting hybrid, but is not quite the beautiful shade of colour of the one just dealt with, the green body colour having a wash of brown over it and dark streaks. It is more an exhibition bird than a pet,

POPULAR CAGE BIRDS

owing to its rarity, as it is not easy to produce, neither has it much of a song. It does well on a diet similar to that for the siskin-greenfinch, and the breeding pairs should be treated similarly to that hybrid's parents.

Redpoll-Siskin.—The redpoll-siskin is perhaps the smallest of the hybrids, but its bright, lively movements and perky ways appeal to all. In shape it is reminiscent of both parents, and in colour a blending of yellowish green and brown, heavily streaked with dark on the flanks and sides; the wings show much of the siskin's yellow bars; the beak is longer than the redpoll's, being more like the siskin's in shape and length. It has a pleasing little song and makes a nice pet, though it can also be exhibited. It is not difficult to keep, and does well on the same diet as or the redpoll-greenfinch. Breeding pairs should be treated similarly to the parents of that hybrid. The end of April is the time for pairing. A cock redpoll and hen siskin is the more preferable pairing.

Bramblefinch-Chaffinch.—The bramblefinch-chaffinch is a charming hybrid with a very pretty blending of the colours of both parents, but as it is not a fluent songster it is bred chiefly for exhibition. The majority of those produced have been bred in an aviary. They can be obtained from both methods of pairing. The siskin-greenfinch diet suits them well, with a little insectivorous bird food added and, if procurable, a green caterpillar daily. The same treatment may be applied to the breeding pairs, with a more liberal allowance of caterpillars when breeding.

Greenfinch-Chaffinch. — The greenfinch-chaffinch

HYBRIDS BETWEEN TWO BRITISH BIRDS

is another rare hybrid, bred chiefly for exhibition. I think only four have been seen at our exhibitions. It is produced chiefly in the aviary, and all that have been exhibited have been bred from a cock greenfinch and hen chaffinch. Both hybrids and breeding pairs may be dieted similarly to previous hybrid and parents.

Linnet - Greenfinch.—Though for years casual specimens of the linnet-greenfinch hybrid have been produced, it is not likely to become popular either as a pet or exhibition bird, owing to the blending of the colours of the parents not being a happy one. The mixture of dull grey and brown does not appeal. The hybrid is quite hardy, is easily kept, and does well on the siskin-greenfinch diet with green food and wild seed-heads. To those desirous of producing this cross it is always better to pair a cock linnet to the hen greenfinch. They have been bred in both cage and aviary.

The hybrid also thrives on the diet for the linnet-bullfinch hybrid, and the breeding pair on the same as for that bird's parents. April is the usual time for pairing up.

Linnet-Redpoll.—The linnet-redpoll is another hybrid which does not find much favour owing to its plain plumage; its chief colour is russet brown, striped with a darker shade. It is scarcely as large as the linnet, though a little bigger than the redpoll; in shape it favours the linnet, except in the head and neck, which are more like the redpoll's. It is of cheerful disposition and has a fairly fluent song, though not so pleasing as that of the linnet. It should be fed and treated as the linnet-greenfinch, and breeding

POPULAR CAGE BIRDS

pairs for the production of this cross should be treated as that bird's parents.

Linnet-Siskin.—The linnet-siskin hybrid is similar in size to the foregoing, but its colour is better; it has a blending of the yellow-green of the siskin intermixed with brown; the yellow-green is particularly pronounced on the sides of the breast, flanks, and in the wings. The movements and shape are largely those of the siskin, and it has a cheerful song. It is not an uninteresting bird as a pet, for it has very pleasing ways, but it is not a very successful exhibition bird. It is easily kept in the best of condition on a similar diet to the siskin-greenfinch. To those interested in trying to breed this hybrid I should advise the pairing of the cock linnet to a hen siskin, as the latter is a more free breeder in captivity than the hen linnet. The food and treatment should be as for the parents of the siskin-greenfinch, with an extra pinch of rape added to the seed mixture.

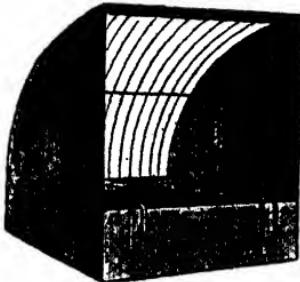
Twite-Greenfinch.—The twite-greenfinch is amongst the rarest of our hybrids, for I think fewer of these have been seen than of any I have dealt with. It is the plainest coloured of any of the hybrids I have mentioned. Its chief colour is that of the twite, with just a faint blending of the green of the greenfinch on the breast and flanks and a tinge of this bird's yellow on the outer web of the wings and tail. In size and shape it is similar to the twite, though a little shorter in the wings and tail. It is quite hardy and easily kept, doing well on the diet recommended for the linnet-redpoll. The cock twite and hen greenfinch should be fed similarly to the parents of that hybrid.

HYBRIDS BETWEEN TWO BRITISH BIRDS

General Hints on Hybrids.—In all cases young hybrids, when first taken from the parents or foster-parents, should for the first fortnight be fed on the same food as the parents; after that time the soft food should be gradually reduced until finally they are on the diet prescribed for the adult hybrid.

I have dealt with the most popular and beautiful in colour, as well as the most rare of British hybrids. There is yet a wide field to explore, and very many new crosses can—and doubtless will—be produced as time goes on. It is a branch of aviculture that can be strongly recommended to those having an enterprising spirit and a desire to produce something that has not yet been achieved.

One point that should not be overlooked is that all the hybrids and their parents here dealt with are free bathers, and should be allowed use of the bath both in summer and winter. In the winter, when the days are short, it should be given in the morning, so that when the birds have had their dip there is ample time for them to dry and preen their feathers before the daylight goes. The bath is most beneficial to their health and vigour, and also assists to keep their plumage prim and in good condition.



Zinc Bath

PART II.—BRITISH BIRDS IN CAGE AND AVIARY

CHAPTER III

THRUSHES AND THRUSH-LIKE BIRDS

Mistle-Thrush, *Turdus viscivorus* (Linn.).—Though this bird is quite a common species, few casual observers could tell the difference between it and the song thrush, yet in reality there is a marked difference in the two birds. It is the largest of the family, and is said to owe its name to its partiality for mistle-toe berries. It averages from 10 to as much as 11 inches in length, and is of much more massive build and broader in the chest than the song thrush. The colour, though to some extent similar in tint, is somewhat lighter, being intermixed as it were with a wash of light buff, giving an ashy brown tone over the back and upper parts ; the lores and eyelids are dull white. The feathers below the eye and ear coverts are ochreous-buff, the feathers tipped with black, forming a line on the upper ear-coverts ; the cheeks, throat, and breast are ochreous-buff, shading off to a dull white on the lower parts of the under body. The dark spots on the breast commence very finely on the throat, increasing in size as they descend to the breast and flanks ; the more evenly the spots are distributed and dense, but not running into one another, combined with good colour and size, the

THRUSHES AND THRUSH-LIKE BIRDS

more valuable the bird as an exhibition specimen. It becomes very tame and playful, and has a happy knack of snapping its bill as one approaches its cage, making a sound like the cracking of a nut. Those who like a loud songster have it in this bird; his song is quite as strong as that of the song thrush, though not quite so mellow.

It is not difficult to keep in captivity, and has also bred and reared its young in an aviary.

Diet and Treatment.—It is an insectivorous bird, and does well on a diet of finely granulated chicken biscuit meal free from grit, with an addition of one part meat meal, made crumbly moist with a little boiling water. A few clean ants' cocoons—or "eggs," as they are called by many—should afterwards be added. Only sufficient food should be mixed to serve for the day's consumption. A little finely minced lettuce or cress should be added on one day, and on another a little scraped raw carrot. Occasionally a little cold boiled potato can be given instead, and at other times a few grocers' currants. The latter may be added to the biscuit meal before moistening with the boiling water. In the autumn, when at liberty, the bird feeds largely on the berries of the mistletoe, juniper, mountain ash, and even hawthorn, and a few of these should be supplied whenever they are procurable. An occasional snail or one or two meal-worms may be given daily with gratifying results.

These birds are particularly fond of bathing and should, if possible, be allowed a daily dip; it is beneficial to their health and plumage. The cage and perches should be kept scrupulously clean, as, owing to the nature of the food, the droppings are copious.

POPULAR CAGE BIRDS

The female is similar to the male, except that she is not quite so rich in colour, and the spots on the breast are not so profuse. This bird is a resident in Britain all the year round, but we also have migrants of the species from north-west Europe to these islands in the autumn and winter.

Song Thrush, *Turdus musicus* (Linn.).—As already mentioned, this is a somewhat smaller bird than the mistle-thrush, though it varies considerably in size. Many of the hens of the species are larger than the cock birds, and more bulky in body. The average length of the bird is about 8 inches, and it is of the same build and movements as the mistle-thrush, though of a somewhat richer hue than that bird.

The whole of the upper part is olive-brown, the head and neck being a slightly deeper shade; the fore-neck and breast are a rich golden buff, with a darker tinge on either side, and are thickly marked with triangular or oval spots of very dark, nearly black brown, commencing so finely on the throat that it appears almost like ticking, becoming gradually larger and more defined as they distribute over the breast and on the flanks. The more evenly these markings are distributed, without running into one another, the more valuable is the bird for exhibition purposes, combined with good size of body and good general tone of colour.

Apart from its value as an exhibition bird, the song thrush is one of the greatest favourites among British songsters. If the season is at all mild he commences to sing early in January and continues right on through the spring and summer until the moulting season, and the flood of melody which

THRUSHES AND THRUSH-LIKE BIRDS

resounds through the still air for weeks, even months, before there is a leaf on the trees, appeals to all who hear it.

This bird is a resident, but, as in the case of the mistle-thrush, there is a large migration of them from North-West Europe in the autumn and, as a rule, these visitors are larger and bolder birds than our own. It is a bird that readily adapts itself to captivity, and does well in either cage or aviary ; it has bred and reared young in an aviary.

Diet and Treatment.—It does well on the same diet as the mistle-thrush, with a little more liberal supply of ripe fruit in season, both large and small. It is also very fond of bathing, and should have the privilege of a bath daily. It is most confiding, and many birds become so tame that the door of their cage can be opened daily for them to have a fly around the room. This they much enjoy, and will return to the cage of their own accord.

Redwing, *Turdus iliacus* (Linn.).—This bird is a winter visitor, arriving in this country in the autumn and departing again in the early spring for its breeding quarters in Norway and the greater part of the northern palaeartic region. It is the smallest of the six British representatives of the genus *Turdus*, but is a most handsome bird, having a greater variety of colour than the two former. Though of the same type and build as the song thrush, it is not quite so large. The general colour above is olive-brown with shadings of darker brown, the wing coverts are edged with lighter brown, tipped with buffy white ; the tail is light olive-brown, with ashy shading ; a very distinct eyebrow of yellowish white, inclining to buffy

POPULAR CAGE BIRDS

white above the ear-coverts ; the lores, sides of face, and ear-coverts are dark brown, streaked with buff below the eye. The breast and under surface are dull white, tinged with a golden hue. The markings on the breast are more oblong than those of the song thrush, and the dark streaks on the throat are very distinct ; the sides of the body are washed with rich chestnut colour.

The manner of the bird is similar to the song thrush, though in captivity we have not found it quite so free and confiding. It has a nice song, though somewhat broken and irregular. It is about 8 inches in length, and is a nice addition to a stock of pets, and a very useful bird for exhibition if it is a good specimen with excellent colour and well-defined markings. The hen, as a rule, is just a shade smaller than the male, and is not so richly marked.

It does well on the same diet as the thrush, with an extra snail or meal-worm or any other grubs procurable. It should be allowed free use of the bath.

Fieldfare, *Turdus pilaris* (Linn.).—The fieldfare, like the redwing, is a visitor to these islands during the autumn and winter, returning to its home in Northern Europe in the spring to breed. It is almost as large as the mistle-thrush and is of similar build, with a very massive body and about 10 inches in length. It has a blending of very distinct colours ; the back and scapulars are chestnut-brown with slight greyish margins to the feathers, giving a bluish shade to the whole ; the head and hind-neck are ashy grey, extending on to the mantle ; the top of the head is slightly streaked with dark centres, and a hoary white band runs round the forehead, extending

THRUSHES AND THRUSH-LIKE BIRDS

over the eyes ; the lores are dusky black, the eyelids buffish white, and the sides of the face and ear-coverts ashy grey with light streaks ; the cheeks are ochreous-buff, faintly streaked with black ; the throat and breast are ochreous buff, with the upper parts covered with dark streaks ; the breast is spotted with blackish centres to the feathers, covering the breast and extending down the sides on to the flanks, and slightly tinged with chestnut ; the lower portion of the breast and abdomen are buffy white, the tail and coverts dark ashy grey.

The cock bird has a very pleasing song but appears somewhat nervous in its delivery. It is a handsome addition to a group of British pet birds, and a well-matured, good-coloured, distinctly marked specimen makes a successful exhibition bird. The hen is not so rich a colour or distinct in flank marks as the cock bird.

The fieldfare does well on the same food as the redwing, except that it is a little freer fruit eater, particularly of the various small berries. We have found it especially fond of grocers' currants, given with the insectivorous food. The bath should be given daily all the year round.

Blackbird, *Turdus merula* (Linn.).—The cock bird, as its name denotes, is jet black over the entire body, wings, and tail, this black becoming more intense with each moult, assuming a more raven-like gloss or sheen ; the bill—which is fully an inch long—and the eye ceres are a brilliant orange colour ; the feet and claws are mostly black or very dark brown. The bird is similar in shape to the song thrush, but has a little longer body, and the wings and tail are somewhat longer ; its movements are very graceful,

POPULAR CAGE BIRDS

with a peculiar flick of the tail when alighting after a flight. It is about 10 inches long. The hen has a brown shading over the black, which becomes more pronounced with each successive moult, and some have a slight brown mottling on the breast also.

There is a fascination about the blackbird which appeals to all except the gardener, and he is no friend of this bird, perhaps not without justifiable reason, as it doubtless consumes and destroys much fruit in the ripening season. Yet the fact must not be overlooked, even by gardeners, that this bird does much good by assisting to keep down insect and grub pests, which are just as destructive—if not more so—than this noble bird. It is most confiding, takes readily to cage life, and is one of the most fluent songsters of the family. Its notes are not so loud as those of the thrush, and are more liquid and flute-like, with a rich mellow tone. It is not only a charming pet, but a most successful exhibition bird when of a good colour, with clean rich orange bill.

The young birds, when first leaving the nest, are not unlike the thrush in colour, except that the brown shading has a mixed sooty appearance and the mottling on the breast is more like large blotches ; this, however, all disappears with the first moult, the all-black coat taking its place.

The blackbird has bred and reared its young in captivity in an outdoor aviary. It does well on the same food as thrushes, except that all kinds of ripe fruit and berries must be given more liberally in the summer ; in winter, pears, apples, bananas, and grapes should be included in the diet. The birds

THRUSHES AND THRUSH-LIKE BIRDS

are free bathers, and the bath should be allowed daily. The cage or aviary should be kept scrupulously clean.

Ring Ouzel, *Turdus torquatus* (Linn.).—This bird is about the size of the blackbird and of similar shape and length ; its movements, too, are similar to that bird's, even to the elevation of the tail when alighting on the ground or perch, but its habitation when at liberty is of a much wilder nature, in the hilly districts among the moors and fells. It is also a migratory bird, but, unlike the redwing and fieldfare, it visits us during the spring and summer and breeds with us. It repairs for the autumn and winter to the Mediterranean districts.

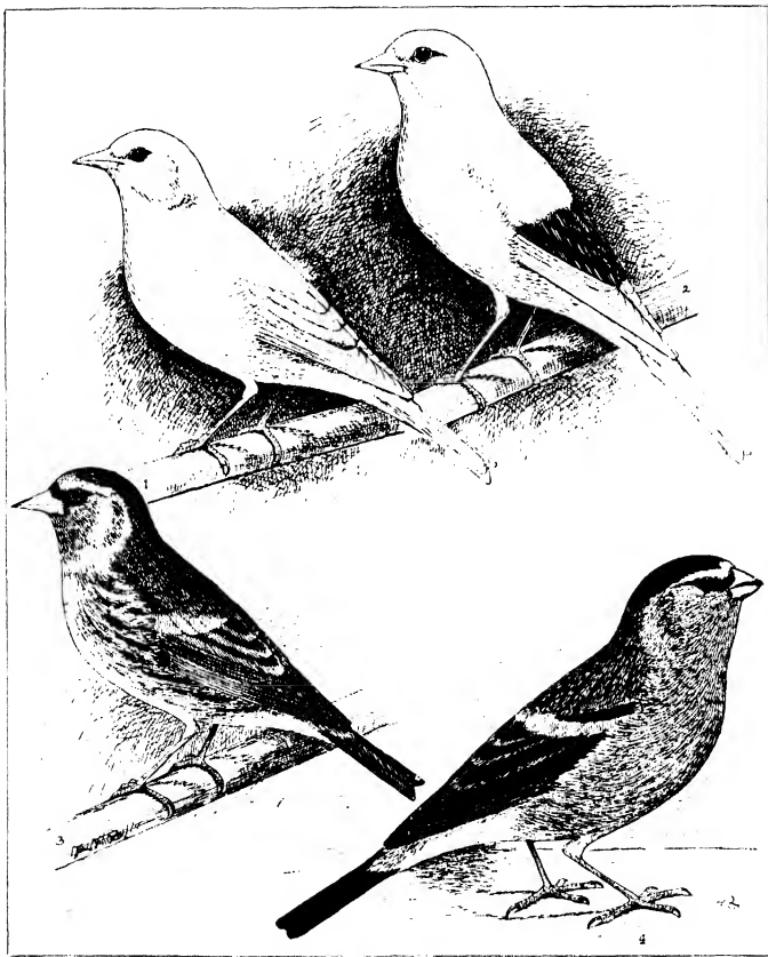
Its song is a mixture of that of the blackbird, thrush and starling, delivered in a somewhat harsh tone. As a pet it is chiefly kept to add variety to a collection, and is not quite so confiding as the blackbird, but when its confidence is gained it becomes very tame and, like others of the thrush family, will take titbits, such as a meal-worm, from one's fingers.

The general colour above is sooty black, with a faint whitish fringe to each feather ; the medium and greater wing-coverts, primary coverts and primary quills are brownish black, with the narrow fringe of the outer web an ashy shade ; the tail feathers are blackish brown, faintly fringed with white at the tips ; the under body is the same as the back, with a distinct patch of greyish white forming a crescent across the breast, giving the bird a most striking appearance. The bill is yellow, and the feet and claws dark brown. The hen is lighter in colour than the cock, having more brown generally.

POPULAR CAGE BIRDS

As exhibition birds they are very successful, owing to their being somewhat rare at the shows, and though they have not much variety of colour they have a pleasing and attractive effect. They do well on a similar diet to the blackbird, but are particularly fond of elder-berries and those of mountain ash and holly ; in fact, most small berries and grubs are devoured with avidity and are beneficial to the birds' well-being. They, too, are very fond of the bath, which should be given freely.

Robin, *Erythacus rubecula* (Macg.).—Commonly called Robin Redbreast, owing to the colour of its breast, this bird is a resident, though there is a large migration, south and east, during the winter. It is a miniature thrush, the spotted young proving their membership of the family *Turdidae*. This spotted colour disappears with the young birds' first moult. The robin is one of the most charming of pets and readily adapts himself to captivity ; he is very confiding in his ways, and cheers one with his pleasing song right through the year, with the exception of the moult period. The bill is dark brown, and the general body colour olive-brown ; the greater wing-coverts are edged with buff. Over the base of the bill, round the eyes and covering the throat and upper part of the breast, it is orange-red, bordered with bluish grey down to the wings ; the abdomen is buffy-white, the flanks light olive-brown. It makes a charming exhibition bird, but does not often get its full dues when competing against more rare species in the same class ; even with this disadvantage it is a bird to be desired as a pet and for exhibition by those interested in British song birds.



1. TICKED SISKIN-CANARY. 2. UNEVENLY-MARKED GOLDFINCH-CANARY.
3. REDPOLL-GOLDFINCH. 4. CANARY-BULLFINCH.

A GROUP OF HYBRIDS

v

THRUSHES AND THRUSH-LIKE BIRDS

Diet.—The robin requires a little finer food than the larger thrushes, and does well on this mixture: equal parts plain biscuit crushed to a powder, finely granulated meat-meal, and "ants' eggs." These latter should be steamed until they swell out to the normal size of the live cocoon; this steaming is not absolutely necessary, but the birds like them better thus. Sufficient of this mixture should be made crumbly moist with milk or water each day for that day's consumption, adding a little finely minced lettuce or cress occasionally. Live grubs, small, smooth caterpillars, and other insects are much enjoyed, as also are flies when obtainable. A little ripe fruit in season is beneficial, particularly small berries; when live grubs and insects are not procurable a few well-cleaned gentles, cleaned by passing through sand, form an excellent substitute. Attended to in this way, the robin will live to a ripe old age. He should have free use of the bath.

Nightingale, *Daulius luscinia* (Newton). — The nightingale is a migratory bird, arriving in England about the second week in April, the cock birds always preceding the hens by a few days. They stay here for the breeding season, leaving again about August for North-East Africa. In its plain plumage it resembles the warblers, but is shown to belong to the thrush family by the spotted plumage of the young ones, which disappears, as in the case of the robin, with the first moult.

In shape and size of body it is not unlike the robin, though it is a little longer, being about $6\frac{1}{2}$ inches, and some are a little slimmer. The general colour above of an adult bird is rich russet-brown; the tail

POPULAR CAGE BIRDS

feathers merging into light chestnut, lores grey, eyelids whitish buff, ear-coverts ruddy-brown, cheeks ashy, shading into sides of neck, running to a lighter shade on breast ; the under body is a dull buff. The hen is similar in colour to the cock bird, though as a rule it is not quite such a rich russet-brown on the back. These birds are of a somewhat sombre colour, but are among the finest of our British songsters, and when one hears the wonderful volume and variety of the song, the long runs, depth, and pathos, it is not surprising that poets and prose writers have so acclaimed the nightingale. It is a charming pet in both cage and aviary, and is also a very successful exhibition bird when shown in a class for nightingales or blackcaps. It does well on the same diet as the robin, and a little finely minced hard-boiled egg added occasionally to the food is an especial titbit and greatly enjoyed. A live meal-worm or two, if small, should be given daily in addition to other insects and grubs. When the weather is genial it should be allowed free use of the bath, for it not only helps to keep the plumage in fine condition, but also the feet.

Treatment of Newly-caught Birds.—Newly-caught birds require extra care and attention for a time. Although I have no sympathy or patience with the faddist who would deprive everyone of the pleasure of keeping a bird as a pet or companion under the plea of cruelty, I equally resent cruelty in any shape or form whatever. Birds just deprived of their liberty, therefore, should be kept in suitable cages, so that they can do themselves no harm while becoming reconciled to captivity. They should be placed in a cage, say 18 or 20 inches long, 12 inches

THRUSHES AND THRUSH-LIKE BIRDS

high, and 10 inches deep, with a piece of stout calico or baize stretched tightly across the top for a roof, instead of wood, so that should anything startle the bird it cannot injure its head by banging against the top of the cage. A piece of light muslin should also be hung over the wires inside the front for the same reason, but no light must be excluded. This precaution is only necessary for a short time, until the bird has gained confidence, when these protections can be removed.

Care must also be taken in regard to their food. For the first few days it is advisable to mix with the soft food a liberal supply of gentles (commonly known as maggots) that have cleaned themselves well by wriggling among sand or bran for a day before they are needed. When placed in the bird's food they attract the bird's attention by their wriggling, and as it dives after the gentles it also gets some of the food, and eventually it takes the soft food quite freely. It is advisable to place the food of these newly-caught birds in a shallow earthenware or glass vessel on the bottom of the cage in a nice light position. For the first week at least the cage should be stood in front of a window in a quiet room, so that the bird has abundant light to see its food and water without being disturbed by anyone. These slight precautions prevent much trouble, and it is but rarely that a bird is lost if such precautions are taken.

Should it be found that the bird does not partake of its food the first two or three days, just before dusk it should be taken in the hand, the bill opened by a little pressure of the finger and thumb, and a

POPULAR CAGE BIRDS

half-dozen gentles slipped into the mouth, pressing them well down the gape. By then passing the finger over the throat in a downward direction to the breast, the bird will gulp the gentles down. This operation should be repeated three or four times. This will be quite sufficient food each day to sustain the bird until it takes to the food of its own accord, which it generally will after two or three days. Many of them within a week or ten days are quite at home, feeding freely, and moving about the cage as if they had been accustomed to it for months. They may then be hung almost anywhere in a reasonably light position.

Red-spotted Blue Throat, *Cyanecula suecica* (Dresser).—This is another of the migratory species which does not breed with us. The few that visit this country have usually arrived on the autumn migration to the southern and eastern counties, though I know of at least one specimen being captured in the county of Durham. It is a charming little bird not quite so large as the robin, with a pretty song and beautiful plumage. The general colour above is dark brown, with olive-tinted shading of lighter brown on portions of the wings. The basal half of the tail feathers are orange-chestnut, and the terminal half blackish brown, except the two centre feathers, which with the tail-coverts are all dark brown ; the crown of the head merges into umber brown, lores black, with an eye streak of buffy white ; the feathers below the eye and ear-coverts are light brown ; the throat a rich azure blue extending down the sides of the neck and crossing the fore-neck, enclosing a large chestnut spot on the lower throat ; the blue band

THRUSHES AND THRUSH-LIKE BIRDS

on the fore-neck is succeeded by a black collar and again by a white one, then a broad chestnut one which covers the breast. The sides of the body are olive brown, and the abdomen greyish white. The throat and chin of the hen bird are white instead of blue, surrounded by a deep brownish black, each feather having a pale margin.

The song is mellow and sweet, and for the size of the bird very full, some of the notes being not unlike those of the mocking bird, while others are much like the nightingale's. I was astonished the first time I heard this bird's song, so soft at first and getting louder and louder as it proceeded, yet sweet and flute-like. It is a bird I can recommend as a pet, but if it was desired to exhibit one it would have to be entered in a class for "Continental" birds, as, although it is listed as a British bird, the National British Bird and Mule Club do not recognize it as such.

As it is an insectivorous bird it does well on the diet recommended for the nightingale, but a little scraped raw carrot should be added occasionally, or a little boiled bullock's heart or liver very finely grated when cold. These additions to the bill of fare are beneficial, as is also a little finely minced heart of lettuce.

Wheatear, *Saxicola œnanthe* (Macg.). — This is another of the migratory birds that spend the spring and summer in England. Some of the species arrive early in March, others in April. It frequents waste lands, pasture, and rocky places, where it may be observed perched on a tree stump, wall, or mound of earth or a stone on the ground. On alighting the

POPULAR CAGE BIRDS

bird has a peculiar bobbing movement of the tail for a second or two. It is a most interesting bird to the ornithologist, much more so than to those who only keep birds as pets, except to add interest to a varied collection. It is about 6 inches in length, and not much of a songster.

The cock birds are very attractive in colour. The bill is black from its base to the eyes, and thence to the ear-coverts there runs a streak of black over which is a streak of white following a similar course ; the crown of the head is grey, lighter on the forehead ; the neck and back are slaty blue ; the rump and upper tail-coverts greyish white ; the wings are blackish brown, as is also the tail, the upper portion of the outer feathers being white. The throat and breast are pale tawny buff, the abdomen and thighs creamy white. The hen is not so attractive—as the head, neck, and back are brown tinged with grey, with the other parts the same as the cock bird.

It thrives on the nightingale diet, with a little scraped raw carrot or raw swede turnip or finely minced lettuce mixed with each day's supply, one or other each day.

Whinchat, *Pratincola rubetra* (Dresser).—The genus *Pratincola* forms an intermediate link between the chats and flycatchers. Though somewhat difficult to keep in captivity unless the diet is carefully studied, the whinchat repays all trouble by its handsome appearance and sweet song. The general colour above is a rich brown with dark centres to the feathers, the fringe forming a beautiful lacing of a lighter shade ; the broad white eyebrow commences at the base of the bill and runs well behind the eye ; the

THRUSHES AND THRUSH-LIKE BIRDS

wings are dark with a contrasting white patch in the greater coverts ; on the chin are white streaks which run down each side of the light rufous coloured throat, the breast is cinnamon rufous coloured, intensified at the sides but toning down to a lighter shade towards the abdomen ; the tail is white at the base, except for the two centre feathers, which, together with the rest of the tail, are brown edged with a lighter brown. It is a smallish, gracefully shaped bird about 5 inches long. The hen differs from the cock in that the streaks over the eyes are buff instead of white, the sides of the breast and throat are much paler and the back is browner. It is a summer migrant, arriving in this country late in April, leaving again early in October for the warmer climate of North-East Africa.

The food recommended for the wheatear answers well for this bird, but it must have a more liberal supply of live food, such as gentles, meal-worms, grubs, spiders, and suchlike. In the autumn wasp grubs and fresh-gathered "ants' eggs" are welcome additions. This diet and the free use of the bath will keep the bird in health and condition. It makes a very interesting pet and a very useful bird for exhibition.

Redstart, *Ruticilla phoenicurus* (Macg.).—This bird arrives in the British Isles early in April, spends the spring and summer with us, breeds, and leaves again in September for the Far East and Africa. It is one of the handsomest of our insectivorous birds, about the size of the robin, and its rich blend of colours makes it most attractive. It has a very pretty song, and is a most attractive bird at our exhibitions.

POPULAR CAGE BIRDS

The forehead has a white band extending over the ear-coverts and crown of head. The neck and back are slaty grey slightly tinged with red ; the rump and upper tail-coverts are orange-chestnut, the greater coverts and primary quills dusky brown, the outer fringe rather lighter ; the ear-coverts, sides of face, throat, and fore-neck are black, the feathers generally slightly edged with grey ; the breast, sides, and upper part of abdomen are rich orange-chestnut, the lower portion of the abdomen below the tail-coverts orange buff clouded with white ; the tail feathers are a rich orange-chestnut, the outer webs darker, with the two centre feathers dark brown.

The hen, unlike most birds of this class, differs materially from her mate ; she is a trifle smaller, the upper part of the body is a uniform greyish brown, the throat dusky white, the breast a dull sandy brown, wings lighter than the cock, and the tail not such a bright tint.

It does well on the same diet as the whinchat. The cage and perches must be kept very clean, as, like most insectivorous birds, it has very tender feet, and dirty perches would irritate them and cause ulcers. Free bathing facilities should never be overlooked ; they keep the feet in good condition and the plumage prim.

Black Redstart, *Ruticilla titys* (Newton), is also a migratory bird, but, unlike the redstart, spends the winter with us. It is found chiefly along the southern coast of England, leaving again in the spring for Central and Southern Europe, its breeding quarters. As a songster it has much in common with the redstart, and is withal a most attractive bird and very

THRUSHES AND THRUSH-LIKE BIRDS

successful when exhibited. It is not black, as its name would infer ; the general colour above is a bluish grey ; the rump and upper tail-coverts are orange-chestnut ; the head is the same colour as the back, shading lighter towards the forehead ; the ear-coverts, sides of face, throat, and breast are black, the latter with grey margins, giving the appearance of hoar frost ; the sides of the body and flanks are bluish grey, the abdomen greyish white, the wings dark, and tail orange-chestnut, except the two outer feathers, which are dark brown shading to rufous toward the base. The hen differs from the cock bird, her general colour being slaty brown with slight olive tint on the back ; the rump and tail-coverts are chestnut, and the tail the same colour with brown tips.

The black redstart is easily distinguishable from the redstart by its black forehead and breast, but it is similar in size and has much the same movements. In its wild state it prefers stony ground or chalk cliffs, but it also frequents gardens and farm-yards. It should be fed and treated as the red-start.

Hand-rearing British Birds.—Those who are interested in hand-rearing British birds can do so without difficulty, providing they have a little patience and pay strict attention to giving the food at regular intervals of half an hour and keeping the nest scrupulously clean ; this is not difficult, as young birds pass the excreta, or droppings, immediately after each feed, so that all that has to be done is to see that they shoot it over the side of the nest each time they are fed. Any that may slip back into the nest as

POPULAR CAGE BIRDS

it is passed must be removed at once with a small spoon.

The young brood should always be taken in the nest in which they were hatched, and this should be placed in an empty flower-pot which it just fits ; this in turn should be stood in a box with a piece of fine-mesh wire netting over it, so that should a youngster struggle out of the nest it would not get lost or trodden upon. The young birds should be kept warm with a light covering of some woolly substance.

The food should consist of equal parts hard-boiled egg, thoroughly minced by pressing it through a fine sieve, powdered plain sweet biscuit and good "ants' eggs," steamed in the manner previously described. These three ingredients should be mixed together and moistened to a pulp with fresh milk ; only sufficient to last several feeds should be mixed, so that a fresh supply is made up three or four times a day. It is most important that the food should be fresh and sweet.

The nestlings should be fed with the tip of a blunt piece of wood, pared off fine, or a quill toothpick. When the warm covering is raised off the nest the youngsters will immediately open their mouths for food, and feeding should continue so long as they gape for it. As soon as they cease gaping they have had sufficient for that meal.

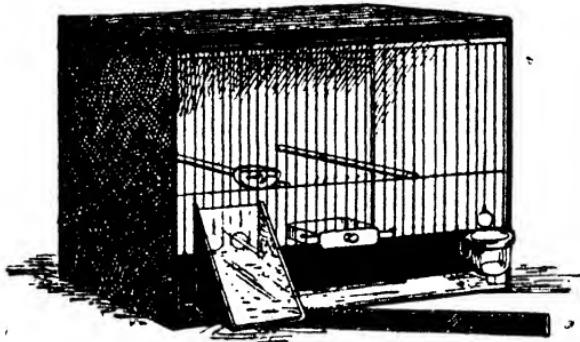
Two or three clean gentles or a small smooth green caterpillar may be given with beneficial results.

If these regulations are strictly carried out there will not be the slightest difficulty in rearing the birds ;

THRUSHES AND THRUSH-LIKE BIRDS

when they are nicely feathered the covering can be removed. When they leave the nest and commence to feed themselves they should be gradually weaned on to the food recommended for the adult birds.

Most British birds can be reared in this way and on this food, the seed eaters and insectivorous birds being gradually weaned on to the usual seed diet for their species.



Single Box Breeding Cage with Wire Front and Fittings (see page 98).

CHAPTER IV

WARBLERS, ACCENTORS, ETC., SUB-FAMILY *Sylvinae*

Whitethroat, *Sylvia cinerea* (Macg.).—This is a very interesting and attractive bird, though not of gorgeous colour, which arrives in April, and usually leaves again in September, though I have seen specimens here in the first week in October. It winters in Africa. It is one of the commonest of our warblers, active in movement, and has a sharp merry little song ; it is somewhat slightly built and about $5\frac{1}{2}$ inches long. The head and neck are slaty grey, the beak grey deeply tinged with brown ; the tail dark greyish brown edged with light umber brown, the two outer feathers being greyish white ; the wings are dark brown, with each flight feather edged with light umber brown ; the throat is white, and the breast and sides pale grey, with just a tint of delicate rose-pink flush ; the abdomen is white. The hen is the same colour, except that she is a little browner on the back and lighter underneath. Owing to its nest often being built in a clump of nettles it is known in many country districts as the " nettle-creeper."

In cage or aviary it is a most cheery little bird and has a pleasing way of raising the feathers on the top of its head as it moves briskly from perch to perch. It is frequently exhibited. It does well on the diet for the redstart, not omitting a small green caterpillar or two whenever procurable during spring

WARBLERS, ACCENTORS, ETC.

and summer, a little wasp grub in the latter part of the season, and ripe fruit of one kind or other all the year round. Small ripe fruits and berries are much appreciated. The bird is also fond of bathing.

Lesser Whitethroat, *Sylvia curruca* (Newton).

—This bird is another summer visitor, but it is not so widely distributed as the whitethroat ; it is most numerous in the southern and midland counties. It is not quite so large as the whitethroat, being about 5 inches long, but is a little more fluent songster. The head, nape, and rump are pale bluish grey, the back mouse-grey, wings sandy brown, tail sepia-brown edged with grey, with the three exterior feathers ashy white ; the throat and centre of the abdomen are pure white, with a pinkish flush on the breast and sides ; the flanks are yellowish brown with just a shading of pink. The hen differs from the cock by having the brown on the back extended to the crown of the head, and is of a more subdued tone throughout. When once its confidence is secured this bird becomes very tame and attached to those who attend to it, ever on the alert for a titbit in the form of a meal-worm, gentle, or other grub or insect. It does well on the same diet and treatment as the preceding bird. Ripe red currants are an especial titbit and at the same time beneficial. It is frequently seen at our exhibitions.

Blackcap, *Sylvia atricapilla* (Macg.).—This bird arrives in England from early April to the end of that month and early May, and, like the nightingale, the cock birds usually precede the hens, and are generally found in the same local spots year after year. It is a little larger than the whitethroat, and is pretty

POPULAR CAGE BIRDS

generally distributed over England and Wales, rarer in Scotland, though well distributed on the borders and in Cumberland. After the breeding season the species leave again in August or September to winter in North-Eastern Africa. It is a very fluent songster, its notes are so deep and mellow that I really prefer it to the nightingale.

Like that bird, its first few notes sound as though some way off, then bubble over as it were with deep sustained melody. The blackcap sings just as well in cage or aviary as when at liberty.

The crown of the head of the cock bird is jet black, forming a cap ; the cheeks, sides of neck, and nape are slaty grey, and the remaining upper parts ashy grey, shaded with olive-brown faintly tinged with green ; the pinions and tail are dark brown, with the outer fringe of the feathers of the same colour as the back ; the throat, breast, and under parts are slaty grey, lighter on the abdomen. The cap of the hen is chocolate brown, and the other parts are more tinged with brown than the cock bird. It is not difficult to keep this bird in cage or aviary ; if the latter, it must be cosy and the sleeping quarters weather-proof. It is a most charming pet and most confiding in its ways ; it is frequently exhibited with some success at cage-bird exhibitions. The whitethroat's diet suits it well, but ripe fruit must not be overlooked, as it is very partial to currants, raspberries, strawberries, elderberries, and green figs ; these should be given freely during the summer months. When they are not procurable other ripe fruits must be substituted both in summer and winter. The bird is also fond of green caterpillars, spiders, flies, and other grub and

WARBLERS, ACCENTORS, ETC.

insect life, and a supply in moderation when obtainable makes a beneficial change in the dietary. There need be no hesitation in letting it have free use of the bath.

Garden Warbler, *Sylvia hortensis* (Bechst.).—This is a summer visitor, arriving a little later than the blackcap and departing about the same time as that bird to winter in Africa. The general colour above is olive-brown, shading to ashy grey on the sides of the neck, lores, and eyelids and just a faint streak of buff over the eye; the wings and tail are a darker brown, with lighter outer fringe; the breast and underparts are ochreous buff, with a deeper shade on the flanks and paler on the abdomen. Both sexes are similar in colour. As a songster its notes and delivery are very similar to those of the blackcap; it is about the same size as that bird, though just a little stouter in body. It makes a charming pet but has a tendency to become too fat if not kept liberally supplied with ripe fruit. The diet for the blackcap suits this bird admirably. It should be allowed free use of the bath.

Dartford Warbler, *Sylvia undata* (Saunders).—This bird resides with us throughout the year, though there is little doubt a certain amount of migration takes place, as the species is found in certain parts of the Continent. This bird was first made known by Dr. Latham, who discovered it in 1773 near Dartford, in Kent, from which place it takes its name. It is now supposed to be almost extinct, though I am of the opinion that its numbers are not so limited as is supposed, as I have discovered it on most lands in the south adapted to its nature. It favours hills

POPULAR CAGE BIRDS

and dales, heavily covered with furze and tall heather, where it breeds and spends most of its life. Owing to its habit of keeping well under cover and, even when it does show itself, not attracting attention by a volume of song, it is doubtless passed unnoticed by many, even in parts where the species is quite numerous. It is a most interesting little bird, about 5 inches in length, of slight build, with an extra long tail, running off somewhat pointed like an arrow at the tip, which it is inclined to open a little in fan shape as it suddenly appears out of the thick undergrowth on the top of a sprig of heather or the topmost twig of a furze bush from which it as suddenly disappears below again. A more cheerful bird in cage or aviary it would be impossible to find. Though it has a nice musical note it cannot be called a great songster, and it is kept chiefly for exhibition purposes. It makes a most charming pet for those who do not require a great volume of song, as its ways are so pleasing, full of life and activity.

The general colour above is blackish slate-grey, tinted all over with a wash of brownish purple-red, becoming a little paler on the sides of the neck and breast ; the rest of the body is vinous-chestnut, except the abdomen, which is white ; the throat feathers are faintly tipped with tiny white spots forming a faint streak ; the wings are sepia-brown, with coverts like the back ; the tail is blackish, edged with slate-grey, with the outer web of the outer feather on either side white. The hen's colour is similar, except that it is a little paler and is a more ashy-brown shade.

The bird does well on a soft food—mixture of one-half sweet plain biscuit, crushed to powder, the other



SISKIN-GREENFINCH

GOLDFINCH-BULLFINCH

GREENFINCH-BULLFINCH

REDPOLE-GOLDFINCH

LINNET-BULLFINCH

BRITISH HYBRIDS

half, composed of equal parts Brand's meat meal, "ants' eggs" and dried flies, well mixed together and kept in a jar or tin covered in a cool dry place. Only sufficient should be taken for the day's consumption, and it should be made crumbly moist with a little scalded milk that has been allowed to cool before mixing with the food, a little scraped raw carrot or finely minced tender lettuce or mustard and cress may be added to make a beneficial change. A meal-worm, or two or three well-cleaned gentles, must be given daily. The gentles should be cleaned as advised on p. 37 ; if this precaution is not taken, diarrhœa is liable. Ripe fruit of one kind or another should never be omitted from the bill of fare, and a few freshly gathered live "ants' eggs" are an especial treat. Free use of the bath should be afforded.

Chiff-chaff, *Phylloscopus rufa* (Bechst.).—This is one of the first of the migratory birds to reach England—frequently arriving in the middle of March—and is one of the last to leave, not departing before September or October. It is a charming little bird, but its song is somewhat monotonous, consisting chiefly of notes from which it derives its name. If kept in captivity it is mostly to add variety to one's collection of British birds or for exhibition. Its colour is very pretty ; the upper parts are dull olive-green shading to olive tint on rump and sides ; a yellowish white eyebrow streak shows in happy contrast to the darker shade ; the wings and tail are dusky brown, with outer webs a lighter shade, and coverts of sulphur-green ; the under parts are pale primrose-yellow, merging into olive-green on the sides of neck and breast. The sexes are similar in colour,

POPULAR CAGE BIRDS

though the cock birds are a little brighter, especially in the yellow ; the feet and claws are a blackish brown. It should be fed and treated as the Dartford warbler.

Willow Warbler, *Phylloscopus trochilus* (Newton).—This is also known as the willow wren, and is a summer migrant, arriving but a few days later than the chiff-chaff and leaving about the end of September for South Africa, where it spends the winter. It is not unlike the chiff-chaff in appearance and colour, but its wings are more pointed and its feet a much lighter colour. Both sexes are similar in colour. It is a better songster than the preceding bird, though there is not great variety in its song ; it commences in a high key, always descending the scale as it warbles its run of notes. It gives variety to a collection, and I have from time to time seen some very handsome specimens at our exhibitions. It should be fed and treated as the chiff-chaff.

Wood Warbler, *Phylloscopus sibilatrix* (Newton).—This bird arrives in this country towards the end of April or beginning of May, and is generally distributed over England, Scotland, and Wales. In colour it is not unlike the chiff-chaff and willow warbler, though decidedly brighter in tone, there being a stronger effusion of yellow over the olive-green ; from the base of the bill, over the eyes to the ear-coverts, is a narrow streak of yellow, below which is a brownish line. These are unmistakable differences that always identify this bird ; it is also a little larger than the other warblers. It has a much more voluminous song, which chiefly consists of long runs, a series of the same notes in rapid succession, with which it makes

WARBLERS, ACCENTORS, ETC.

the woodland echo, and which once heard is not easily forgotten. It gives variety to a collection of birds and is suitable for exhibition purposes. It takes quite kindly to cage life, and becomes very tame and affectionate. The diet recommended for the Dartford warbler suits it well; an especial titbit is fresh-gathered live "ants' eggs"—in fact, it would live on them, and a supply should be given during the summer whenever obtainable. It is also a free bather.

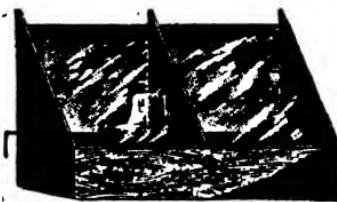
Among other warblers are the reed warbler, the marsh warbler, the sedge warbler and the grasshopper warbler, all of which are most interesting, but have little attraction to those who keep birds as pets only, owing to their sombre colour and feeble song. They are chiefly kept for exhibition and by naturalists for the purpose of closely studying their habits. They one and all do well on the diet for the Dartford warbler.

Hedge Sparrow, Sub-family *Accentorinæ*. *Accentor modularis* (Macg.).—Though among the most sombre in colour of our resident British birds—being a uniform ashy-brown, with blackish centre streaks—this is a most affectionate bird in its ways, and makes a charming pet in a cage; it is a most free and pretty songster, and even in its wild state—like the robin—seeks human society. If fed the same as the whitethroat it will keep in splendid health and condition; an abundance of ripe fruit should be added to the bill of fare.

Bearded Reedling, *Panurus biarmicus* (Newton).—Commonly called the bearded tit, this is another of our residents worthy of a note, if not for its song—which has but little variety—for its beautiful colour

POPULAR CAGE BIRDS

and marking, which make it a pleasing addition to a collection of birds. The entire upper parts of the body are a rich fawn colour, intensified on the wing-coverts and tail, shading to a light fawn-grey on the cheeks and ear-coverts. From the bill, across the eyes and down each side of the throat of the cock bird, runs a jet-black band, forming a moustache, as it were, which the bird has the power to puff out at will. It is from this feature the bird derives its name " bearded." The hen is the same colour as the cock, except that she has no black moustache ; there is no difficulty, therefore, in distinguishing the sexes. The birds take quite kindly to cage life, and though active they are, if not carefully fed, inclined to obesity, in which case there is a risk of fits. This, to a great extent, can be avoided by giving the diet recommended for the Dartford warbler, reducing the quantity of powdered biscuit and meat meal and adding more " ants' eggs " to the mixture, together with a little grated raw carrot or finely minced lettuce daily. These, and the other species briefly referred to, should have free use of the bath.



Double Seed-Hopper.

CHAPTER V

TITS, WRENS, WAGTAILS, PIPITS, AND SHRIKES

THE tits (Family *Paridae*) are a most interesting group in habit, and include some of the most beautiful of our British birds in regard to colour, and they are also remarkable for their small though powerful sub-conical shape bill. In captivity they all, without exception, prefer a small box or nest-like receptacle, such as a coco-nut husk, to sleep in rather than having to rest on a perch. Though most are amenable to cage life, very many of them do better in an aviary, owing to a tendency to obesity when kept in a cage; this in turn tends to cause fits, which often prove fatal to birds apparently in the best of health.

Among those less inclined to excessive fat when kept in cages is the **Long-tailed Tit**, *Acredula rosea* (Sharpe).—This bird will live for years in a cage and retain the best of health and condition. Its very small body and extraordinarily long tail—over three inches in length—give it a very attractive appearance. The body feathers have a downy-like appearance, especially on the head and flanks. The general colour above is black with white, ashy, and rose coloured marking. Like all the tit family, it is very active in movement, and a free bather; if allowed to use the bath frequently it retains a nice glistening sheen over its peculiar texture of plumage. The sexes are similar in colour, but the black stripe over the

POPULAR CAGE BIRDS

eye is said to be broader in the hen than the cock. The tits do well on a diet recommended for the white-throat, and make very interesting pets and an equally interesting exhibit at our shows.

The **Gold Crests** and **Wrens** are another most interesting group of small, active birds; some of them are fluent songsters, but others of the family are somewhat feeble in this respect.

Golden - Crested Wren, *Regulus cristatus* (Newton).—This is probably the smallest of all British birds, for it is only $3\frac{1}{2}$ inches in length; it is resident throughout the British Isles, but its numbers are often greatly augmented by migrants from the Continent during the autumn. Its general colour is yellowish green, varying in shade on different parts; on the crown of the head is an oval patch of rich reddish orange, shading to gamboge-yellow, and along the front and sides of this is a deep band of black. The orange patch does not appear to develop to its full splendour until the birds are three or four years old, seeming to improve with each successive moult. A faint dark streak passes over the eyes, while the cheeks and throat are a buff shade, running into ashy white on the breast and under body. The wings and tail are blackish, edged with yellowish green with a double bar of white across the wings. The hen is similar in colour to the cock bird but not so bright, the general colour being a greener shade. They make charming pets, and the cock has a very pretty short musical song. If properly fed and their cage is kept scrupulously clean they will live to a ripe old age in the best of health and condition. They are frequently exhibited. They do well on this

TITS, WRENS, WAGTAILS, ETC.

mixture as a staple diet: equal parts powdered plain sweet biscuit, "ants' eggs," dried flies, and quarter part Brand's meat-meal mixed together. Sufficient may be mixed to last a week or two if it is stored in a jar or tin, covered and kept in a cool dry place. It should be made crumbly moist when given to the birds by the addition of a little scraped raw carrot. By way of a change a little preserved yolk of egg or ground silkworm pupæ may be added occasionally. They must also have live food, such as a meal-worm or two or three gentles—the latter in the chrysalis form. The meal-worm should be cut into short pieces. They are very fond of house flies, and these should be given whenever procurable. They are free bathers and thoroughly enjoy catching a few "ants' eggs" floating on the water, a few of which should be dropped into the bathing water daily. They much prefer a slender branch of a fir tree to perch on rather than the ordinary smooth wooden perch. If these little points are studied they add to the happiness and consequent health of the bird.

For these small birds the food and water are best placed inside the cage, thus avoiding any possible chance of escape through the feeding holes in the wire front.

Fire-Crest Wren, *Regulus ignicapillus* (Macg.).—This is a bird of similar size and temperament to the gold crest, and is not unlike that bird in general colour. The orange patch on the head is a deeper shade, more of a seville or fiery tint; the eye-streak is a denser black, followed by a streak of white above and below. As in the preceding species the hen is

POPULAR CAGE BIRDS

similar in colour to the cock bird except that she is duller and the orange patch on the head is not so brilliant. The song of the cock bird resembles that of the gold crest. These birds are only winter visitors to England, arriving in September and leaving again in April for their breeding quarters in central and southern Europe. They should be fed and treated as the gold crest.

Common Wren, *Troglodytes parvulus* (Newton). Family *Troglodytidæ*. Familiarly known as "Jenny" or "Kitty" Wren, this bird is a resident in Britain. It is much plainer in colour than the wrens already mentioned, though of similar dimensions and equally active movements. It carries the tail much higher, and the tips of the wings droop on either side of it. Its power of song is wonderful for so small a bird. The general colour is dark brown rippled with rufous, which runs down to the tip of the tail and gives a very pretty effect. It is chiefly kept for exhibition purposes, but makes an interesting pet; it should be fed and treated as the gold crest.

The **Wagtails** are one of the most graceful groups of British birds. They are true ground walkers; that is, they do not hop like many other species, but either walk or run when on the ground. They derive their name from a graceful bobbing up and down motion of the tail, which has a fascination even for people who take little or no interest in birds. There are only five of the species that concern us.

Pied Wagtail, *Motacilla lugubris* (Temm).—This is a resident in Britain throughout the year. Its chief colour is black with a white patch on the forehead and ear-coverts, and in its summer plumage the

breast and under body are also white ; the wings are washed, as it were, with ashy grey ; the two outer tail feathers are white, and the others black or blackish grey. These birds are particularly fond of water, therefore a good-sized bath should always be within their reach. They do well on the gold crests' diet, and delight in a good sprinkle of "ants' eggs." These should be dropped on the bathing water daily, and are captured by the birds as they paddle about in the bath.

White Wagtail, *Motacilla alba* (Linn.).—This is a summer visitor only. Its nesting and general habits are similar to the pied ; indeed, it is so like that bird in colour that it is often mistaken for it. It is distinguished from it by its blackish grey body colour and black throat instead of white. It is equally fond of water and should be fed and treated as the pied.

Grey Wagtail, *Motacilla melanope* (Pall).—This is another resident and a much handsomer bird than either of the two former, though of precisely similar habits. The summer plumage is light bluish slate-grey ; above the rump and tail-coverts are yellow ; the throat black, bib-shaped ; a white streak runs over and down the nape from behind each eye, while a second white streak runs from the gape down each side of the black bib ; the breast is yellow, richly intensified on the lower parts ; the wings and tail dusky brown, edged with yellowish white. The hen is similar in colour though not so brilliant, and the black throat is not so pronounced. In their winter plumage the black patch disappears in both sexes, and is replaced by a whitish buff tint. The species

POPULAR CAGE BIRDS

has bred successfully in an outdoor aviary. The diet and treatment should be as for the preceding birds.

Blue-Headed Wagtail, *Motacilla flava* (Linn).—This bird is an accidental summer migrant to England and Scotland, but has a wide range in Europe and Asia. Its habits are much those of the preceding birds, except that it keeps more to the field and farmsteads. I have had the pleasure of judging some very fine specimens at several of the best exhibitions. Their plumage is exquisite ; the crown of the head and nape and auriculars are bluish grey, streaked with a darker shade from the nostrils to the eyes ; passing over them and above the auriculars is a streak of white ; the back is olive-yellow running to a lighter shade on the rump ; the wings are black, washed with a tinge of light brown ; the scapulars and coverts are edged with yellowish white ; the tail—except the outer feathers, which are white—is streaked with brown, with the inner web dusky black ; the throat is white, and the remainder of the under parts rich yellow. The hen is similar in colour but duller with a browner coat.

The diet recommended for the preceding species suits them well.

Yellow Wagtail, *Motacilli raii* (Dresser).—Also known as "Ray's" wagtail, this is among the earliest summer migrants, arriving in March. It breeds in most parts of England, the south of Scotland, and parts of Ireland, leaving again in September. It keeps more to the fields and farmsteads than the white or grey species. The colour is charming and its graceful outline adds to its beauty. The forehead,

TITS, WRENS, WAGTAILS, ETC.

fore-neck, throat, breast, and under body colour is a rich bright yellow, with a streak of this colour over each eyebrow ; the head, nape, and back are olive-yellow, with a tinge of green ; the wings are yellowish brown, with primaries or flights deepening to black, edged with yellow ; the tail is similar in colour, except that the two outer feathers on each side are white. The hen is of similar colour but not so bright in tone, with a greenish shade on the forehead. They do well on the same food as the foregoing species.

All of this group take readily to cage life, become very tame, and make charming pets, though they have but little song. They are also handsome birds for exhibition.

The **Pipits** (Genus *Anthus*) differ from the wagtails in having heavily streaked brown plumage, shorter tails, and a more lark-like appearance. I propose to refer only to three of the family.

Tree Pipit, *Anthus trivialis* (Newton), frequently called the "tit-lark."—This is a summer visitor, which arrives in April, breeds with us, and leaves again in September for its winter abode in Africa or Western India. The general colour is sandy brown, lighter in tone on the breast and shading to buffy white on the abdomen ; the entire upper parts and breast are streaked with dark centres which run on to the flanks ; the wings are umber-brown, with primaries faintly edged with greyish white. The hen is similar to the cock, but the dark streaks on breast are finer. This species has bred in an outdoor aviary. It has quite a pleasing song, of nice variety and without harshness. It becomes very tame in a cage, and also makes a nice exhibition bird. The diet recommended

POPULAR CAGE BIRDS

for the wagtail suits it well ; it should be allowed free use of the bath.

Meadow Pipit, *Anthus pratensis* (Macg.).—This bird, too, is often called the "tit-lark." It resides here all the year, although many migrate south for the winter. It is asserted that those which return to our shores in the spring are much brighter in plumage than those which winter here. It is scarcely so attractive as the tree pipit. The head, nape, and back are of a decided olive-green, heavily striped with darker stripes ; the eyebrow is a stripe of pale sandy buff ; the throat is tawny buff and also the breast, which is heavily streaked with black triangular spots ; the flanks are washed with olive with broad stripes of black, but not so densely as the tree pipit ; the wings and tail are olive, with the outer feathers of the tail white. The hen is smaller but similar in colour to the cock, but is not so profusely spotted on the breast. They have a cheery song. They should be fed and treated as the preceding species.

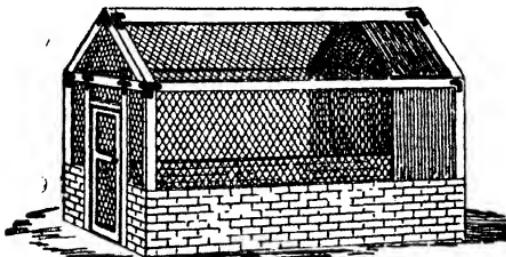
Rock Pipit, *Anthus obscurus* (Newton).—This bird is also a resident and has much in common with the meadow and tree pipits, though it is a little larger. The general colour above is olive-brown with dark centres, somewhat broader and heavier than those of the before-mentioned species ; a light streak passes over each eye ; the throat is dull white ; and the breast buffish white, thickly mottled with dark brown centre ; the wing-coverts are tipped with dull white ; the tail smoky brown, with the outer feathers lighter. The hen, again, is similar to the cock except that she is not so heavily spotted on the breast. The song is quite musical, and the bird makes a very nice pet;

TITS, WRENS, WAGTAILS, ETC.

and an equally useful bird for exhibition purposes. It does well on the same diet and treatment as the other pipits ; they may all be given a little canary seed occasionally, preferably soaked in cold water for two days, changing the water two or three times ; all the surplus water should be drained off and the seed rubbed dry with a cloth before giving it to the birds.

The **Shrikes** are an interesting family in colour, formation of bill, and habit, but have little song and are chiefly kept for scientific study and exhibition.

The **Tree Creeper**, **Waxwing**, and **Fly-catchers** are also interesting, but do not appeal to the person who keeps a bird only as a pet. They, too, are chiefly kept for study or exhibition purposes.



Small Outdoor Aviary.

CHAPTER VI

THE FINCHES—FAMILY *Fringillidæ*

THE finch family and other seed-eaters form a very interesting group of birds of wide distribution, and many are especial favourites both as pets and for exhibition. Like the insectivorous birds, the different species vary considerably in colour of plumage and habits.

Greenfinch, *Ligurinus chloris* (Dresser).—This bird is a resident and has a large circle of admirers. There is scarcely an exhibition of cage birds anywhere but has a display of fine specimens. It is a short, chubby bird of stout build, about 6 inches in length, with a strong thick bill. The general colour is green, shading to olive-yellow; the wings are dusky brown, with bright yellow outer web to the long feathers or primaries; there is also a good display of this colour in the base of the tail, shading to blackish green at the end. There are what are called by experienced bird keepers "yellows" and "buffs" in this species. The "buffs" have a wash of ashy grey over the whole of the yellow-green body, which does not appear on the "yellows." The hen is duller in colour and does not display the yellow in the wings or tail, but merely the faintest tint on the very edge of the outer web. They are most hardy and keep in splendid condition in cage or aviary, and are free breeders in both. They have not a great variety

THE FINCHES

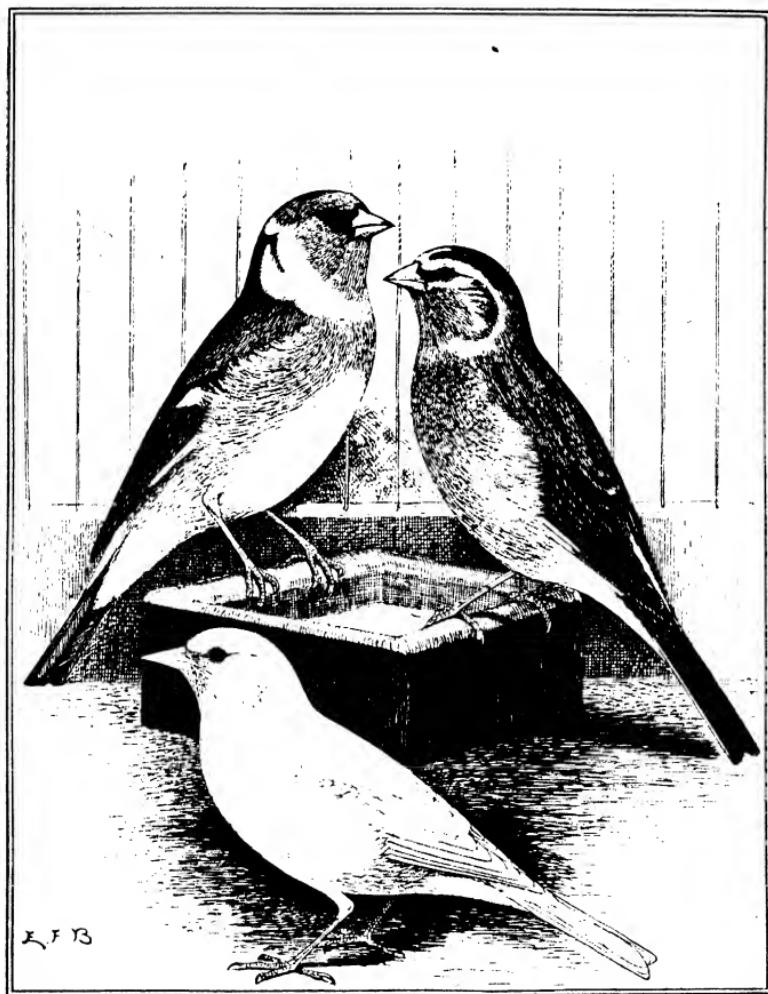
of song—there is a great deal of “*cher*” about it, or so it seems, but it is incessant and not unpleasant. They do well on a seed mixture of one half canary and the other half composed of equal parts rape, teazle, linseed, and sunflower seeds with a very little hemp added twice a week. Almost any freshly gathered wild seed-heads are enjoyed, as also are smooth green caterpillars or an occasional meal-worm; one of these latter should be given daily during the winter. This insect diet maintains a good bloom on the plumage. Free use of a bath should be afforded.

Hawfinch, *Cocco thraustes vulgaris* (Dresser).—This is the largest of the British finches. It is a resident that is most popular with those who keep birds for a hobby, and a very successful exhibition bird. It has a most formidable bill and is of powerful build. It has a very short tail, which gives it a general appearance of shortness, though its actual length is about 7 inches. It is very handsome in colour; above chocolate-brown, the forehead shading off to cinnamon; the hind neck is bluish grey, and the under parts vinous-brown; the abdomen is greyish white, and the throat black, forming a thumbnail-shaped bib; the wings are black, intermixed with bars of white, glossed over with shades of purple and steel-blue. A peculiarity is that the secondary quills, which display this lovely blue shade, have very broad tips, just slightly overlapping the primary quills as if to display the colour to greater perfection. The tail-coverts and centre feathers of the tail are cinnamon-brown, and the other parts blackish brown edged with white. The birds are not great songsters. The

POPULAR CAGE BIRDS

hen, though similar in colour, is much more subdued, and the black bib is very small. They are very hardy and do well on a diet of one half canary seed and the other half equal parts sunflower and dari, with just a little hemp and rape. A few oats occasionally are much enjoyed and a couple of meal-worms daily. During the summer, when green peas are about, a swad or two should be given, for they are one of the hawfinch's choicest titbits; they are also fond of small ripe berries and stone fruits. They are free bathers.

Goldfinch, *Carduelis elegans* (Macg.).—This bird is without doubt one of the most popular favourites of our resident British finches, which is accounted for by its gay plumage, sharp cheery song, bright lively temperament, and the proud switch of its tail as it utters its metallic-like notes. The general colour above is rich chocolate-brown, the crown of the head is black, which extends to form a collar behind the milky white ear-coverts; the forehead and throat are rich crimson, forming, as it were, a mask over the face with brilliant effect; the wings are black with white tips and a richly pronounced yellow bar across; the tail is black with white tips; the under parts are buffish, washed with chocolate on each side of the breast. The hen is similar in colour to the cock, but the crimson face cuts off sharp by the eye, whereas it passes beyond the eye in the cock. There are other distinguishing marks to sex, but this is the surest guide to an amateur or beginner. The bird is a gifted songster with a good variety of notes, and is full of life and vigour. It has a slender, somewhat long, pointed bill. It takes kindly to captivity, and



GOLDFINCH-BULLFINCH

LINNIT-BULLFINCH

CLEAR GOLDFINCH-CANARY

AN INTERESTING GROUP OF HYBRIDS

THE FINCHES

is equally at home in cage or aviary and breeds freely in both.

The seed diet should be half canary, with the other half equal parts linseed, teazle, and niger, with just a little rape, hemp, and groats ; this forms an excellent staple mixture. They should have, in addition, half a teaspoonful of dried wild seeds, such as thistle knapweed and dandelion, two or three times a week during the winter. In the spring and summer a supply of the seed-heads of these weeds should be given daily, fresh gathered, adding to them shepherd's purse, chickweed, groundsel, and plantain. These, given in an almost ripe succulent condition, have a most beneficial effect on the health and condition of these birds. When they are not obtainable a little green table salad should be given in addition to the dried wild seeds. An occasional small meal-worm is very beneficial. There should be free use of the bath in summer and winter.

Siskin, *Chrysomitis spinus* (Dresser).—A resident, but not so widely distributed as the goldfinch. It is much smaller than that bird, being about $4\frac{1}{2}$ inches long, though it is equally perky and lively in movement, chattering the while. It is not such a fluent songster, but has an incessant and rather pretty song, with a long-drawn-out note at the end of each run. It is a most hardy bird, and takes readily to cage or aviary, but is a perfect glutton. It therefore requires to be carefully fed, otherwise it becomes too fat. The general body colour is yellowish green streaked with black centres to the feathers ; the crown of the head is black, with the throat forming a bib. (Many individuals, however, lose this in captivity.) The

POPULAR CAGE BIRDS

rump is bright yellow ; the wings are blackish, barred with greenish yellow and dusky black ; the tail feathers are yellow at the base, and dusky dark at the end with yellowish outer web ; the breast is yellow, washed with a faint green tint ; the flanks are streaked, with dark centres ; the abdomen white, tinged with greenish yellow. The hen differs from the cock in that it has no black cap and is paler in body colour. The bill is similar in length and shape to that of the goldfinch. These birds will breed in cage or aviary. They should be given a seed diet of equal parts canary seed, niger, and teazle, with the addition of a little linseed and rape. Wild seeds and green food, as for the goldfinch, should also be given, and, when procurable, particularly in the autumn, a supply of ripe seeds of birch and alder. A pinch of maw seed is a real titbit, and may be given every two or three days. They should have free use of the bath.

Chaffinch, *Fringilla cælebs* (Linn.).—This is a resident, and its cheery call note, " *Pink-pink*," is known throughout the whole countryside. In shape it is somewhat cone-like, tapering off beautifully to the tail ; it is very graceful and full of life and activity. It has a pretty, rollicking song, though there is much repetition. The bird is kept by many as a contest singer ; by others for exhibition or breeding ; while many keep them merely as pets. In colour the head is slate-blue ; the back, chestnut-brown, with a wash of olive-green ; the wing-coverts are white, and the greater coverts blackish tipped with white, forming a bar across the wing, which is blackish brown ; the tail is black, except for the outer feathers, which are ashy grey ; the throat and breast are vinous-red,

THE FINCHES

faintly washed with purple ; the abdomen is ashy white. The hen is much paler in colour, practically ashy brown with just a tinge of pink on breast, and the bars on wings are not so pronounced. These birds, though seed-eaters, are partially insectivorous, and a supply of insect life should be given them in captivity. They are also fond of bathing and should never be deprived of the opportunity, as it adds to their vigour and beauty.

The diet should be canary seed with just a little linseed, teazle, rape, and sunflower added, and the various wild seeds and seed-heads as for the other finches. The insectivorous food—as recommended for the wrens—should be given in a separate vessel and not with the seed. An occasional meal-worm or a spray of any shrub or bush covered with greenfly blight is much enjoyed.

Brambling, *Fringilla montifringilla* (Linn.).—Also known as the “bramble-finch” or “mountain finch”; this is a winter visitor to these isles, arriving between September and November, and leaving again in the early spring for its breeding haunts on the Continent and Siberia. It is not so fluent a songster as the chaffinch, though it has many of that bird’s ways, and is similar in size and shape. It is kept chiefly for breeding and exhibition, though owing to its pretty markings and colour it is an attractive addition to a collection. It is also a nice pet, and will become very tame in a cage. The head and mantle are black, with a bluish sheen and cinnamon coloured tippings giving a spangled appearance. These tippings are more pronounced in the winter plumage than the summer ; the rump is ashy grey ; the breast and flanks orange-

POPULAR CAGE BIRDS

rufous, with the flanks spotted with black ; the wings are dark, with light buffish bar and sandy margins to the secondaries. The hen has similar marks, but they are much paler and more sandy brown. They should be treated and fed as the chaffinch.

Linnet, *Linota cannabina* (Newton).—This is a resident and is very numerous in all parts of the open country, particularly on common lands covered with furze bushes. Though a bird of sombre hue, it is a great favourite with many who only keep a bird for song, for it has a splendid variety of sweet notes ; in fact, it heads the list of British finches as a songster. It takes kindly to either cage or aviary, and with care lives to a good old age. It is also a free breeder. In build it is a trifle stouter and fuller in the head than the preceding finches ; its bill also is a little shorter and stouter.

The head and breast are sandy brown ; the back reddish brown, streaked with a darker shade on both back and breast ; the wings and tail are blackish, but the former are washed with brown and have a very distinct white outer web ; the abdomen is dull buffy white. The hen is duller in colour and has blacker streaks, with just the narrowest edging of white to the wings. In their wild state in the spring and summer the birds assume a rich crimson or carmine colour over the forehead and breast, giving them a very striking appearance. They do well on a seed mixture of equal parts canary, summer, and English rape, with a little teazle and linseed ; and occasionally a little gold of pleasure seed, or a casual sunflower or hemp seed, may be given. All the wild seeds and fresh-gathered seed-heads advised for the

THE FINCHES

other finches are beneficial to this bird, those of the dandelion, shepherd's purse and charlock being especial favourites. They are also free bathers and should never be deprived of the bath.

Mealy Redpoll, *Linota linaria* (Newton).—A winter migrant, but somewhat erratic in numbers, at times coming in large flocks, and at others very few. It is widely distributed in Northern Europe. It has a very stout body for its size—just over 5 inches in length. Its song is poor, being more of a continual chatter or twittering. It takes readily to cage or aviary, is very perky in its movements and very playful. Specimens are kept chiefly to add variety to a collection, and for breeding or exhibition purposes. The general colour is a light bluish buff, with a wash of brown over it, with heavy dark brown streaks on the back, sides of breast, and flanks ; there are finer streaks on the head ; the wings and tail are blackish, with dark grey outer edges ; the throat is black, forming a bib. In their wild state they have a bright crimson forehead and a rosy pink shade over the breast and rump, but these adornments disappear with their first moult in captivity. The hen is similar in colour, except that it has no crimson forehead or rose-pink breast. They do well on the diet for the linnet, with just a little niger seed added to the seed mixture twice a week. Free use of the bath is necessary.

Lesser Redpoll, *Linota rufescens* (Newton).—This is a resident, but its numbers are augmented by large spring and autumn migrations from Europe. It is a much smaller bird than the preceding, and of very graceful outline, though its ways and chatter-

POPULAR CAGE BIRDS

ing song are similar. The general colour is rich rufous brown, with heavy blackish streaks on the back, breast, and flanks ; the ear-coverts are sandy brown ; the abdomen dull white ; wings and tail very dark brown ; the throat is black, forming a narrow bib. It is a charming little bird either as a pet, for breeding, or for exhibition purposes, and becomes so tame that it may be allowed to leave its cage for a fly around the room, after which it will return to its cage of its own accord. It should be fed and treated in like manner to the mealy.

Twite, *Linota flavirostris* (Dresser).—This bird is also known as the “mountain linnet” ; it is a resident and migrant, breeding in the northern parts of Britain, and migrating southwards in the winter. It has a rather feeble song, not unlike the redpoll. It is a little larger than that bird, and not unlike the linnet in colour, except that the brown is a much more reddish rufous tint, particularly on the breast, and the streaks are darker ; it is also minus the white edging to the feathers of the wings. It is a popular cage bird for exhibition purposes, and has also bred in captivity, taking readily to cage or aviary life. It should be fed and treated as the linnet.

Bullfinch, *Pyrrhula europaea* (Veill).—This is a resident throughout the British Isles except in the extreme north, and is admired by all except the gardener, who looks upon it as one of his greatest enemies, owing to its destruction of the young buds on fruit trees and bushes. Its flute-like call note is one of the features of the woodland, and though very shy in its wild state, it becomes one of the most docile and affectionate pets in captivity, while owing to its

THE FINCHES

beautiful colour it is among the most popular ; it is also a splendid bird for exhibition purposes. Its notes are rich, soft, and mellow, and if put under tuition when young it can be taught to pipe tunes. It is of fairly stout build, about 6 inches in length, with a short, strong parrot-like bill, the upper mandible of which has the same round curve as that of the parrot. The cock bird has a rich black cap, which covers the entire crown of the head ; the neck, back, and wing-coverts are bluish grey, and the rump and tail-coverts greyish white ; the wings and tail are black with a light grey bar across the wings ; the under-neck and breast are rich vermillion, forming, as it were, a red waistcoat with charming effect ; the abdomen is buffish white. The hen differs from the cock in that the breast is chocolate colour and the back washed with a tint of brown. The birds have bred both in cage and aviary.

The seed mixture should be one half canary and the other half composed of equal parts summer rape, teazle, linseed, sunflower, and groats ; once a week a few grains of hemp and a meal-worm. In spring, summer and autumn a few almost ripe seed-heads, such as dock, ragwort, thistle, shepherd's purse, chick-weed, groundsel, and plantain, should be given, one or other of them, daily ; when they are not procurable a sprig of watercress or piece of tender lettuce should be given. To retain that beautiful vermillion colour of the breast to its full richness, a liberal supply of ripe berries must be given daily during the moult, such as mountain ash, blackberries, elder, privet, and hawthorn berries ; red and black currants, or a raspberry or two, are also much enjoyed. If berries are

POPULAR CAGE BIRDS

not given the breast colour comes much paler with the moult in captivity. Free access to a bath should be allowed and plenty of fresh air.

Crossbill, *Loxia curvirostra* (Linn.).—This is both a resident and winter migrant. It is a very interesting bird, rather pretty in coloration, but has not much song, and is very destructive with its cage, unless it be of metal. It is chiefly kept by ornithologists, so does not require detailed description here.

The **Buntings**, Sub-family *Emberizinae*, form another interesting group of birds, though none of them has much vocal power. They are kept chiefly either to add variety to a collection, for scientific purposes, or as exhibition birds. All take readily to cage or aviary life, and some make nice pets where song is not a consideration. I shall refer only to those which are resident in or regularly visit the British Isles.

Corn Bunting, *Emberiza miliaria* (Linn.).—This bird is a resident and migrant and the largest of our bunting family, being a little over 7 inches in length and stoutly built. The general colour is sandy brown, with darker streaks or centres ; the wing-coverts are edged with sandy buff ; the wings and tail are brown, edged with lighter brown ; the abdomen is dull white. It has a poor song, but it becomes very tame and playful in captivity, and is a very successful exhibition bird. The diet should be canary seed with a few whole oats and a little grass seed, occasionally adding a few grains of hemp or sunflower seed ; a meal-worm or two should be given daily ; and half a teaspoonful of a good insectivorous food twice a week, made crumbly moist, is very beneficial with the various

THE BUNTINGS

wild seed-heads recommended for the finches. Free use of the bath should also be allowed.

Yellow Bunting, *Emberiza citrinella* (Linn.).—Commonly called the “yellow-hammer,” this is a resident and a very popular bird, even in rural districts, owing to its peculiar yet not unpleasant song, which sounds as if it were calling, “*a-little-bit-of-bread-and-no-cheese.*” It is a nice shapely bird, scarcely so large as the corn bunting ; the head, throat, and breast are rich yellow, the head being marked on each side of the crown with dark green in the form of a V, meeting on the forehead at the base of the bill, another streak passing before and behind the eye ; there is also a dark patch on the ear-coverts. The upper portion of the body is brown, streaked with blackish brown, washed with vinous chestnut, this shade of colour being very intense on the rump ; the lower portions of the breast, sides, and flanks are rich chestnut ; the flanks heavily streaked with blackish brown ; the wings and tail are dark brown, edged with brownish orange. The colours of the hen are less brilliant ; the head is sandy brown, only faintly striped with yellow, while the throat and breast are striped with brown. They are handsome birds, becoming very tame in cage or aviary, and make very successful exhibition birds. They do well on the same diet and treatment as the preceding bird.

Cirl Bunting, *Emberiza cirlus* (Linn.).—This is almost as handsome as the yellow bunting, though not quite so large, nor is it so numerous or of such kindly temperament. It is resident and migrant. In colour its chief contrast to the yellow bunting is its black throat, with a shield-shaped patch of yellow

POPULAR CAGE BIRDS

below the black ; the head and hind part of neck are olive-green, striped with black and washed with bluish grey ; the rump and tail-coverts are olive-green. The hen differs from the cock in not having a black throat or yellow marks on the sides of face, and the lesser wing-coverts are greenish grey. The cock bird has a very plaintive song. They are not difficult to keep, and do well in cage or aviary on the same diet and treatment as the corn bunting.

Reed Bunting, *Emberiza schæniclus* (Linn.).—This is another resident and migrant, a little smaller than the previous bird, and more active than any of this family. It is also totally different in colour. The general colour above is dark brown, striped with black ; the head and throat are black with a band of white running round the neck down to the breast (in summer the black on the head is a much denser hue) ; the rump is blackish, with feathers fringed with grey ; the wings are brownish black, edged with chestnut-brown ; the tail is black, except for the centre feathers, which are greyish brown ; the two exterior feathers have white running diagonally from the base to the tip of the inner web ; the sides of the breast and flanks are streaked with blackish brown, and the abdomen is white. The general colour of the hen is brown, heavily streaked with black, with white abdomen. They do well in cage and aviary, should be fed as the preceding bird and also allowed free use of the bath.

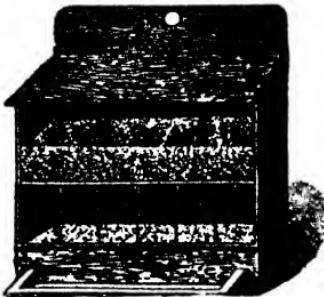
Snow Bunting, *Plectrophenax nivalis* (Sharpe).—This is a regular winter visitor, about the size of the yellow bunting, though perhaps just a little stouter in build. It differs from any of the other buntings

THE BUNTINGS

in colour. The summer plumage of the cock bird is head, neck, breast, and under body white; back, wings, and tail blackish brown; the wing-coverts forming a bar of white across the wing; the primary quills also white at the base and the outer tail feathers edged with white. In winter much of this light plumage is covered with rufous tippings. The hen's general colour is more rufous in shade, with less black and white marking. These birds become very tame, but are chiefly kept for scientific or exhibition purposes; they do well on the same diet as other buntings.

Lapland Bunting, *Calcarius lapponicus* (Sharpe).

— This is another autumn and winter visitor, chiefly to our northern districts, which is kept principally to add variety to a collection, or for scientific or exhibition purposes. It should be fed and treated as other buntings.



Self-supplying Seed-Hopper.

CHAPTER VII

STARLINGS, CROWS, LARKS, WOODPECKERS, ETC. (FAMILY *Sturnidæ*)

IN this group we have some most interesting birds, both as songsters and pets ; some of them, however, owing to their size, are more adapted to an aviary than a cage, though all can be kept in perfect health and condition if suitable cages are provided for them. The starlings, like the crows, are "ground walkers" ; that is, they use a walking step instead of the hop like most passerine birds.

Common Starling, *Sturnus vulgaris* (Linn.).—This is resident throughout the British Isles, is not without talent, and a most winsome pet. It may be taught to whistle tunes and talk with fairly clear articulation, and is a wonderful mimic. It is so well known that it is only necessary to say the general colour is black with sandy buff tips to the feathers, which forms a spangling over the body, intermingled with purple-green and violet reflections, giving a most handsome appearance. The purple gloss on the hen is never so brilliant as on the cock, and she is more heavily spangled with the buff tips. This bird should be fed and treated as the thrush. An occasional garden worm is an especial titbit ; a meal-worm, wasp, or other grubs and spiders are all welcome additions to the diet and beneficial. There should be opportunity for a bath daily.

Chough, *Pyrrhocorax graculus* (Dresser).—This bird belongs to the crow family, and the species we are dealing with is commonly called the “Cornish chough,” owing to it at one time largely favouring the Cornish cliffs for its breeding quarters. It is a resident, and though almost as large as a rook, makes quite a charming pet, and delights in being fussed with. In colour it is raven black, with a purplish gloss ; the wings are extraordinarily long, the bill very fine and slightly downward curved, from $2\frac{1}{2}$ to 3 inches in length, of a rich vermillion colour ; the legs and feet are the same colour, making a very striking contrast to the black plumage. Both sexes are alike in colour. They can be kept in a large cage in perfect health and condition, but a small aviary is preferable ; they should have the same diet as the mistle-thrush, with an additional supply of well-boiled bullock’s liver or heart, minced fine, and occasionally—say twice a week—a little minced raw beef, allowing a day or two to elapse between each time of giving. They are also fond of shell fish, and a little of any may be given, but it should be chopped fine. They are very free bathers, and a large shallow bath should be allowed them for their morning dip.

Jay, *Garrulus glandarius* (Macg.).—A resident and migrant, and much more attractive in colour than the preceding bird. The general colour is light fawn with a rich vinaceous tint ; the forehead is white with dark tippings ; the throat, rump, and abdomen white ; the wings are dark grey, with coverts barred with black and blue ; the tail is blackish grey. Both sexes are alike, though some maintain the hen is scarcely so brilliant in colour. This bird is a wonderful mimic.

POPULAR CAGE BIRDS

and can be taught to imitate various sounds and even to talk a little. It can be kept in perfect health and condition in a large cage, but owing to its size is more adapted for aviary life, being some 13 inches in length. It should be fed and treated as the chough.

Magpie, *Pica rustica* (Dresser).—This bird is resident throughout the British Isles ; like the jay, it favours wooded parts and is of similar body size, though longer, owing to the extraordinary length of the tail. The raven-like black of its plumage, with green and purple reflections, large white shoulder patches, with the sweeping white belt round the lower breast, make it most attractive. The sexes are similarly marked, but the hen lacks the bright reflections on the dark portion of her plumage, which are so pronounced in her mate. It can be made a real pet, for it has most affectionate ways, and is a wonderful mimic ; it can be taught to whistle tunes and repeat words, lives happily in a large cage or aviary, or after it has become tame may be allowed to run about. It should be fed and treated as the jay.

Jackdaw, *Corvus monedula* (Linn.).—An abundantly distributed resident and a great favourite. Its comical cry of "Jack" and its mock-serious look make it a delightful companion. It may be kept in a large cage or aviary. Many that have been hand-reared are allowed to run about the garden. The general colour is black, with a beautiful blue and purple sheen over the head and wings, a peculiar grey sheen covering the black neck. The sexes are alike, and they do well on the same diet and treatment as the jay.

STARLINGS, CROWS, LARKS, ETC.

Family Alaudidæ.—The true larks are easily distinguished from any of the preceding birds by their less conical bill and peculiar form of their feet, particularly the abnormally long hind toe. By far the greater number live almost entirely on the ground, running swiftly, or basking in the sun among the dust and in the sand on the seashore. Their flight is powerful and capable of being long-sustained. This is quite a large family, but only three of its members concern us here.

Skylark, *Alauda arvensis* (Linn.).—This is a well-known resident throughout Great Britain, though it migrates from the more northern parts during the winter. It is among the most fluent of our British songsters, and delights one with its thrilling notes just as freely in a cage as when at liberty. The general colour is brown, the feathers being edged round with a lighter brown, giving a streaked-like appearance in varying shades of brown; the wings are brown, edged with lighter shade; the tail is brown, except the outer feathers, which are part white. The sexes are the same colour, but the cock birds are larger and bolder in appearance. They do well on any good insectivorous food, or that recommended for the nightingale, with a little canary seed or crushed hemp once a week. This bird does not bathe, but dusts itself in sand, of which a good thick covering should be placed in the bottom of the cage. A nice fresh clover grass turf should be placed on the bottom of the cage, or in the bow front, if the cage has one, at least once a week.

Woodlark, *Alauda arborea* (Linn.).—This is a very local resident and nowhere abundant; it is

POPULAR CAGE BIRDS

chiefly found in the southern and western counties. It is scarcely so large as the skylark, and the general colour is sandy rufous, streaked with dark brown, with a line or eyebrow of buffish white ; the wing and tail feathers are blackish brown, the tail being tipped with white. It has a charming song, which is much softer than, and has not the duration of, that of the preceding bird ; the notes are mellow and musical. The sexes are alike, and the diet should be as for the skylark.

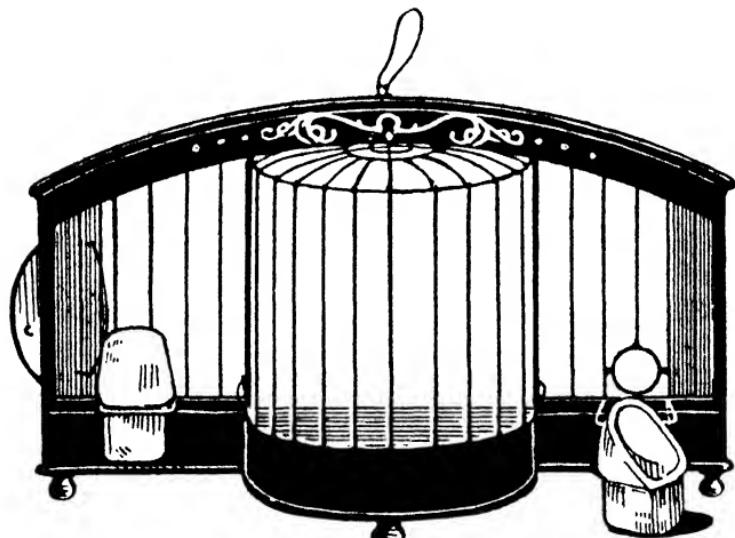
Shorelark, *Otocorys alpestris* (Newton).—A winter migrant to our shores. While it has a greater variety of colour, it is not such a good songster as the former birds, and is chiefly kept for exhibition or scientific purposes. It does well on the same diet and treatment as the skylark.

Golden Oriole, *Oriolus galbula* (Linn.).—This is the only species of this family which has any claim to the British list. It is a rare summer migrant and breeds throughout Europe. It is a handsome bird, the chief colours being black and rich yellow, but it is not much of a songster and is kept chiefly for its attractive appearance. Occasionally a specimen has been shown at some of our exhibitions. It should be fed and treated as the song thrush.

Wryneck, *Iynx torquilla* (Dresser).—A summer migrant, and not at all difficult to keep in a cage. Its chief colour is varying shades of brown distributed over the body in stripes, as it were. It has but little song, and owing to its peculiar movements is kept chiefly as an exhibition bird. The same may be said of the **Woodpeckers**, an interesting family to the aviculturist.

STARLINGS, CROWS, LARKS, ETC.

The **Great Spotted**, the **Lesser Spotted**, and the **Green Woodpecker** are all charming birds as regards colour, but have no song. Owing to their climbing habits they do not take to a perch in a cage or aviary ; therefore the back of whichever they are to be kept in must be covered with virgin cork for them to cling to and run over. They do not appeal to the amateur or person who keeps a British bird as a pet. They have all been frequently shown at exhibitions with success, and all do well on the insectivorous food recommended for the warblers.



Lark Show-Cage (see page 103).

PART III.—SOME POPULAR FOREIGN BIRDS

CHAPTER VIII

INSECTIVOROUS, FRUIT- AND NECTAR-EATING BIRDS

Shama (*Cittocincla tricolor*).—An inhabitant of the Indian jungle and one of the most fluent of foreign songsters ; some portion of its song is not unlike that of our English blackbird, deep and full of melody. It is not quite so large as that bird ; the general colour is glossy black, with just a wash of white on the rump ; the under parts are chestnut. It makes a charming pet, and is most engaging in its ways. It does well on such a diet as that recommended for the Dartford warbler, with just a little more liberal supply of gentles or other live insects and ripe fruit. It should also be allowed free use of the bath.

Blue Sugar Bird (*Dacnis cayana*).—A native of Central America and distributed through Brazil and Bolivia. Its great charm is its delicate and beautiful outline with its gorgeous plumage. The general colour is satin-like blue with just a slight greenish tint, a slight patch of black on the forehead and throat ; mantle, wings, and tail, black edged with blue ; under-colour a slaty tint. The hen differs from the cock bird in that she is a bright green with blue head. In size they are about the same as the British willow warbler. Their food mixture should be

FOREIGN INSECTIVOROUS BIRDS

equal parts plain sweet powdered biscuit, "ants' eggs," and dried flies. Just sufficient of this for each day's consumption should be made crumbly moist with a little of Nestlé's sweetened milk ; a little finely crumbled sponge cake may be added occasionally, with a liberal supply of ripe sweet fruit and small live insects. Free use of the bath should be afforded.

Yellow Winged Sugar Bird (*Coereba cyanea*).—

The home of this bird is southern Mexico, Brazil, and Bolivia ; it also occurs in Cuba. It is similar in size to the preceding, and its chief charm, too, is its splendour of colour, which is well-nigh indescribable. It is a bright purplish blue, varying in shade ; the lores, mantle, wings, and tail are black with a shading of yellow on the wing-coverts. The hen differs from her mate in being green with a dark shade above, and a wash of yellow on the under-parts. They should be fed and treated as the preceding species.

Superb Tanager (*Calliste fastuosa*).—

Another bird whose home is South America, and, as its name rightly indicates, one of the most handsome of a group of birds which would be difficult to surpass for variety and splendour of colours. The colour of the superb tanager is a glittering blend of reflections of gold, green, blue, orange, and black, with sundry other colours blending into each other, appearing in their varying tints like shot silk. There is little difference in the colour of the sexes, but the hen's is not quite so rich and of a lighter tint.

About the size of the English robin, these birds are not much of songsters, but their gorgeous colours make them charming pets. The same diet as that for the sugar bird answers well, but orange or banana

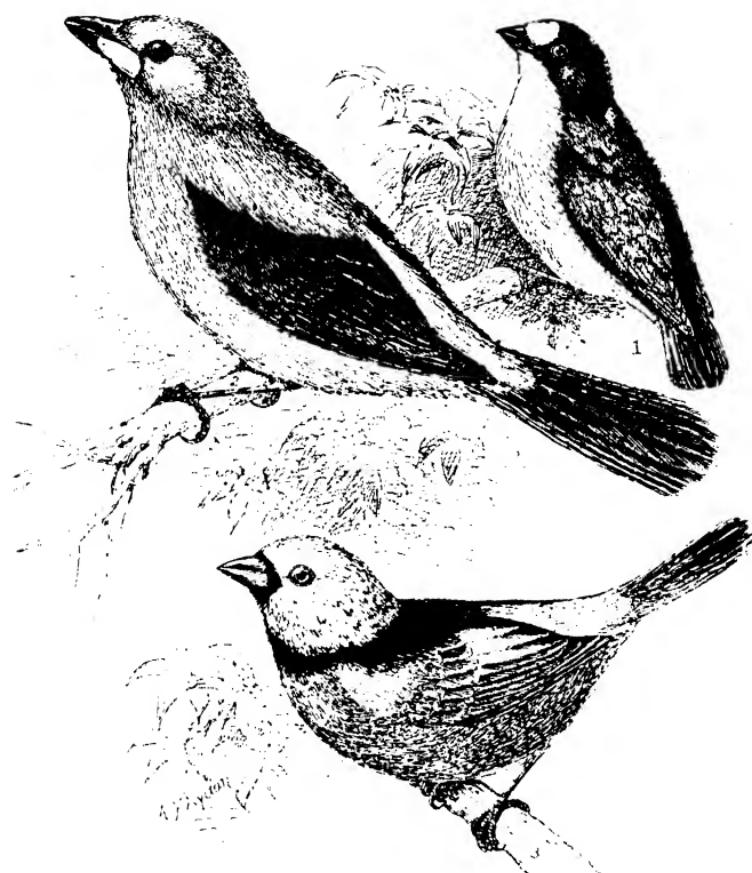
POPULAR CAGE BIRDS

should form a good portion of the fruit given ; spiders are welcome tit-bits.

Scarlet Tanager (*Rhamphocælus brasilius*).—An inhabitant of Brazil, similar in size to the superb, but it has a little longer tail, and though it has not so many shades of colour as that bird, its plumage is gorgeous. The body colour is dazzling carmine red ; wings and tail dull black. The hen is a reddish brown shade. This bird is not a great songster. It should be fed as the preceding bird. It is fond of meal-worms, and should be given one daily.

Violet Tanager (*Euphonia violacea*).—Another native of Brazil, but a much smaller bird than the two former, and though its colours are not quite so attractive as those, it is a better songster. The general colour above is purplish blue-black ; the front of the head and under-parts of body yellow. The diet and treatment are the same as for the preceding birds.

Green Fruit Sucker (*Chloropsis malabarica*).—A native of southern and central India, about the size of the English skylark, perhaps just a little longer. It is a very pleasing bird in appearance, and a very fine songster, the notes being deep and flute-like without any harshness whatever. The general colour is a bright rich green, with a yellow patch on the forehead ; the throat is black, wings shaded with bright blue and brown ; the abdomen is greenish grey. The hen is smaller, has a green forehead, and the dark patch on the throat is smaller. The diet should be equal parts powdered plain sweet biscuit, crumbled sponge cake, "ants' eggs," and dried flies mixed, and sufficient for each day's consumption made crumbly moist with Nestlé's milk diluted with a little water ;



1. VIOLET.

2. SCARLET.

3. SUPERB.

TANAGERS.

FOREIGN INSECTIVOROUS BIRDS

ripe fruit of some kind must always be within reach of the bird, preferably banana, orange, or grapes, in all cases split open and fixed in the cage near the perch so that the fruit does not get soiled by the bird's excreta or other matter. Access to the bath should be obtainable. I believe that this species has bred in an aviary in this country.

Pekin Nightingale (*Liothrix luteus*).—This bird, also called the "Pekin robin" and "Japanese robin," inhabits the Himalayas and extends to China. It is not unlike the English robin in size and shape; is a charming songster and of most attractive appearance. The general colour above is olive brown, shading to an olive yellow tint on the head; the face is greyish olive, shading to yellow round the eyes; the throat and breast are bright orange, intensified in parts; the wings are dark, each of the primaries being edged with rich orange; the tail has dark portions tipped with white. The sexes are similar, except that the hen is not so rich in orange tint and has more grey on the face. They make charming pets, and do well on the same diet as the preceding birds, with the addition of an occasional meal-worm, or two or three gentles, or other insects. Free use of the bath should be allowed. If memory serves me aright, this species has bred in this country in an aviary, and there is no reason why they should not breed in a large cage.

Indian White-eye (*Zosterops palpebrosus*).—Also known as the "spectacled bird," this is a native of India and Ceylon. It is about the size of our willow warbler, and makes an excellent pet for either cage or aviary. It has bred and reared its young in an

POPULAR CAGE BIRDS

aviary. The general colour above is rich olive green, throat and upper portion of breast bright yellow; under-parts and abdomen white; flanks grey, faintly tinted with olive; thighs and under tail-coverts shaded with yellow. A ring of white round the eyes forms the "spectacles." It may be fed as the Pekin nightingale, with the addition of a little sweetened milk sop occasionally. Allow a bath.

Black-headed Sibia (*Malacias capistrata*).—A native of the Himalayas, this bird is about 9 inches in length, the extra long tail accounting for a good deal of this. It is a handsome bird and most attractive in its movements. The general colour is rich chestnut red, with lighter shades on the nape and under-body, the middle of back shading to greyish brown; the head is satin-like black, the wings slate grey with white bar over coverts; the tail dark, with ruddy tint. The hen is similar, except that her head is slightly tinged with brown.

On several occasions young have been produced in aviaries and partially reared, but up to the present, so far as I know, none has been successfully reared; this, however, is no reason why they should not be. They should be fed and treated as the white-eye, with a little more liberal supply of gentles and live "ants' eggs" as often as procurable.

CHAPTER IX

SMALL SEED-EATING FOREIGN BIRDS

THERE are many charming and most brilliantly coloured birds among the smaller seed-eaters. Though some of them have not much song, their wonderful colours appeal to everyone.

Parrot Finch (*Erythrura psittacea*).—This brilliantly coloured bird is scarcely so large as our house sparrow and a native of New Caledonia. The front portion of the head, cheeks, throat, rump, and tail are vivid scarlet, and the remaining portions of the body brilliant grass green. The sexes are similar in colour, though the hen is not quite so brilliant. They are of bright, lively disposition, and do well in either cage or aviary. They have been bred in this country and on the Continent in an aviary. The diet should be equal parts canary and millet seed, with a few oats added. During the breeding period egg-food should be given in addition to a liberal supply of "ants' eggs." Seed-heads of meadow grass should also be given while they are rearing young.

There is another species called the **Three-coloured Parrot Finch**, but I have only seen about two specimens of it.

Melba Finch (*Pytelia melba*).—The home of this lovely bird is Africa. It is about the same size as the parrot finch, but scarcely so active. The forehead, throat, and top portion of the tail and coverts

POPULAR CAGE BIRDS

are rich vermillion, the remainder of the upper portion of the body pale brownish grey, tinged on the back with green; the upper part of the breast is light yellowish rust colour, and the lower part and under-body dark grey, each feather being tipped with a round white spot giving the appearance of beautiful even spangling; the under tail-coverts are dull white. The hen is not so brilliant, and the head plumage is ashy grey instead of scarlet. They do well on the diet recommended for the parrot finch, with an occasional meal-worm. Free use of the bath should be provided. They have bred in an aviary, and doubtless would do so in a good-sized cage.

Red-faced Finch (*Pytelia afra*).—This bird is the same size as the preceding, and has a rich vermillion face similar to that bird, except that the colour does not extend so far down the throat; the tail, coverts, and body colour are identical, with the exception that it displays a rich shade of light rust colour on the flight feathers of the wings, and that the yellowish rust colour on the breast is replaced by grey; the under-body is a dark grey, faintly tinged with green, and in place of the round white tippings of the Melba, the fringe of the feathers are white across the tips, forming a white lacing over the under-parts. The hen differs from her mate in having no red on the head or face. The diet for the preceding bird applies here also.

Red-faced Gouldian Finch (*Poephila mirabilis*).—A native of North and North-West Australia, this is a bird about the size of the English goldfinch, of kindly temperament. The front portion of the head and face is a rich carmine-red; adjoining the red is

a black stripe uniting with a black patch on chin and throat, which in turn joins a stripe of metallic cobalt blue merging into peacock green on the back of the head ; the hind neck and back are golden green ; the primary feathers of the wings are dark, edged with green. A peculiar feature of the tail, which is black, is that the two centre feathers are much longer than the others, tapering to a pin-point. A broad belt of violet, tinged with ultramarine, passes round the breast ; the abdomen is saffron yellow. The colours of the hen are not so brilliant, and she only displays a very small patch of carmine on the forehead. They are hardy birds and have bred in an outdoor aviary in this country. They do well on a diet consisting of equal parts canary seed and Indian and white millet seeds ; spray millet is also much enjoyed not only by these birds, but by all the foreign finches I have referred to. Seed-heads of meadow grass are also an excellent addition to the bill of fare, as are also other wild seed-heads and sprouting canary and rape seed. They are also fond of bathing.

Black-faced Gouldian Finch (*Poephila gouldiae*).—

Another variety of the same species which inhabits the same districts of Australia. It is not quite so beautiful as the red-faced variety ; as its name indicates, it has a black forehead and face instead of red. The hen is scarcely so rich in colour, and the black face is not so expansive. A friend of mine bred this variety in an outdoor aviary at Stanwix, Carlisle ; they built their nest behind a ledge in the aviary and reared their young successfully. They do well on the same diet and treatment as the red-faced variety.

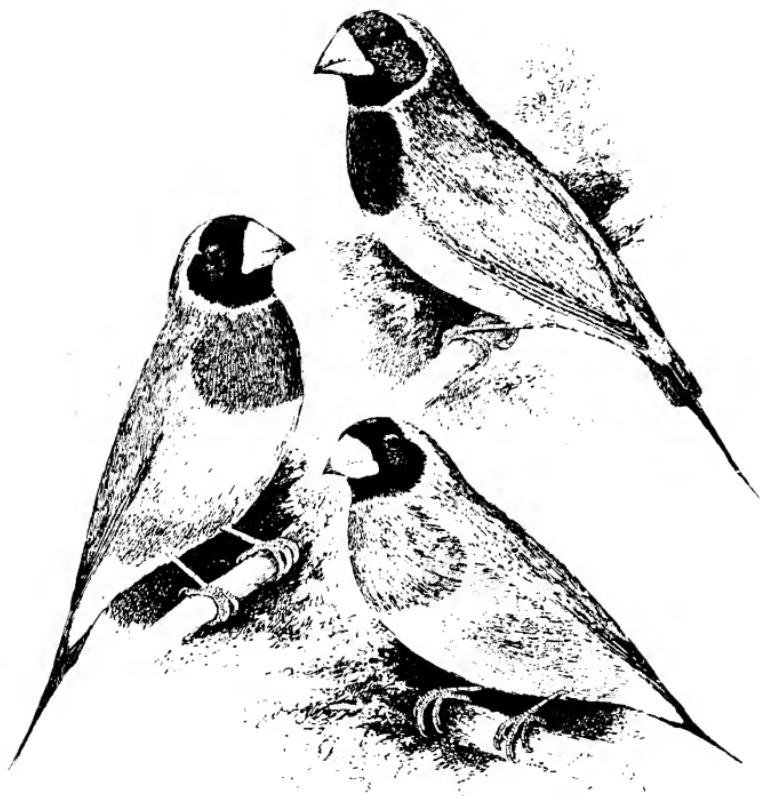
Pin-tailed Nonpareil Finch (*Erythrura prasina*).—

POPULAR CAGE BIRDS

An inhabitant of Borneo, Java, Malay, and Southern Tenasserim, this is a handsome bird belonging to the grassfinch family. A wonderful blend of sage-green covers the upper parts ; the cheeks, throat, and breast are cobalt blue, merging into rose-vermilion on the breast ; the abdomen, sides, and under tail-coverts are golden brown, the tail vermilion, shading into black. The diet should be canary seed, white millet, and a few oats ; flies, spiders, and a small meal-worm may also be given occasionally. There should be a free use of the bath.

Violet-eared Waxbill (*Granatina granatina*).—An inhabitant of South Africa and amongst the most beautiful of the waxbill family. The general colour above and below is rich chestnut, shading to grey on the rump, and to black on the abdomen, with under tail-coverts bright blue ; wings and coverts brownish grey, with reddish margins ; the forehead and tail coverts are bright blue ; the tail black, faintly edged with blue ; lores dusky ; a streak of lilac over the eyes, the same shade on ear-coverts and sides of face, with a bordering of black on lower portion of cheeks and throat. The hen is more grey above and a yellower shade below, and the lilac shade on the face is paler ; also there is no blue on the under tail-coverts. They have a nice sweet song with a fair variety of interesting notes. The diet should be canary seed and Indian and spray millet. A small meal-worm, flies, and spiders should be given whenever procurable, and seed-heads of grass. Free access to the bath should be afforded.

Cordon Bleu (*Estrilda phænicotis*).—These charming little birds inhabit Western Africa and extend to



BLACK-HEADED (MALE).

BLACK-HEADED (FEMALE).

RED-HEADED (MALE).

GOULDIAN FINCHES.

SMALL SEED-EATING FOREIGN BIRDS

Zanzibar. The general colour above is mouse-brown ; the rump and upper tail-coverts are azure blue, cheeks and breast the same shade ; ear-coverts crimson, tail prussian blue, abdomen dove colour. The hen is similar in colour, except that she has no crimson on the ear-coverts. They are bright and lively in their ways and temperament, and have bred in an aviary. They do well on the same diet as the preceding bird.

Green Amaduvade Waxbill (*Stictospiza formosa*).—

An inhabitant of Central India, full of life and pleasing colour. The general colour above is olive green, intensified to a golden shade on rump and tail-coverts ; the tail is black, the throat dull white, shading to dull yellow on breast, intensified to a brighter degree on the abdomen and under tail-coverts ; the sides of the body are white, barred with black. These birds will breed in an aviary and would possibly do so in a cage. They do well on a seed diet of equal parts canary seed and Indian and white millet ; they are also fond of spray millet and seed-heads of grass. The bath should be allowed.

Crimson-Winged Waxbill (*Pytelia phoenicoptera*).—

A native of Senegambia, and parts of the Nile, Equatorial Africa, this is a charming little bird, full of vivacity and of very attractive colour. Light brown above, the head a soft grey tint, while a wash of vinous shades the back ; the rump, tail-coverts, and wings are crimson, with a brighter shade on the wing-coverts, parts of which display a shade of brown ; the primaries and portions of the tail are of a darker shade. The colours of the hen, especially on the wings, are not so bright.

These birds have nice musical voices, though not

POPULAR CAGE BIRDS

much song, make interesting pets, and will breed in an aviary, or probably a cage. They do well on the same seed diet as the preceding bird, with the addition of a little live insect food, such as spiders, flies, a meal-worm, and a few "ants' eggs." A little insectivorous food made crumbly moist with a little grated raw carrot is a welcome change, and especially essential when breeding. The bath should be allowed at all times.

Napoleon Weaver (*Pyromelana afra*).—An inhabitant of North-West and North-East Africa and Abyssinia, a very hardy, docile, and charming bird. The chief colour of the front is chrome-yellow; the cheeks and throat are encompassed in a patch of black, the nape and lower part of the breast extending to the abdomen also being of a velvet-like black; the vent is yellow, and the wings and tail light brown. The hen is russet-brown above, with tawny buff under-parts. The cock bird has a peculiar song. It is interesting when they are breeding to watch them weaving their nest. The diet should be canary seed, Indian, white, and spray millet, seed-heads of grass, or any green salad; flies, spiders, and a meal-worm daily. They are much the same size as the English greenfinch.

Grenadier Weaver (*Pyromelana orix*).—A most beautiful bird, whose home is South Africa. The breeding plumage of the cock bird is principally scarlet above, tinged with orange; the crown, sides of head, throat, breast, and under-parts are black; the wings and tail brown, the outer web being edged with a lighter tint; the mantles and wing-coverts are red, shaded with darker streaks. The hen is

yellowish brown with black streaks ; the under-parts are lighter, with the dark streaks shading into a yellowish tint on the centre of the body ; there is a streak of yellow over the eyebrow. They are of rather quarrelsome disposition, and if caged or kept in an aviary with other birds, the latter should only be such as can defend themselves. They will breed in an aviary and would possibly do so in a good sized cage. They do well on the diet recommended for the preceding bird.

Nonpareil Bunting (*Cyanospiza ciris*).—A bird of brilliant colours, with a pleasing little song. Its native home is in the southern states of North America, Cuba, the Bahamas, and Central America. When in full colour the cock bird's head, neck, and shoulders are ultramarine, shading into golden green on the back ; the rump is rich orange, and the tail green ; the coverts are light golden green ; the wings bronze, edged with golden green ; the throat, breast, and under-parts are vermillion with just a tint of orange. The hen is all green above and yellow below. The diet should be canary seed, with just a little millet, and some insectivorous food, given crumbly moist in a separate vessel ; in addition, spiders, flies, two or three gentles, or a meal-worm daily, seed-heads of grass and other green food. Live insect food not only helps to retain the richness of the beautiful colours, but also assists to keep the birds in good condition generally. The bath is most essential.

Indigo Bunting (*Cyanospiza cyanea*).—An inhabitant of the United States east to Panama. The general colour is bright blue, varying in lighter and

POPULAR CAGE BIRDS

darker reflections on different parts of the body, with just a tint of green blended with it on the wing-coverts and a few dark streaks on the back ; the throat is blackish, and the wings dark brown edged with blue. The hen differs, being brown above with a wash of blue on the shoulders and rump ; the under-parts are buffish white with darker shading. The same diet and treatment as that for the nonpareil answers well ; both these birds are similar in size and build to the English linnet.

All the birds dealt with in this and the preceding chapter are of beautiful colour, many are fluent songsters, and all make charming pets and exhibition birds. None of them is really difficult to keep either in cage or aviary, a point that I have kept in view in my selection from the huge number of foreign birds that are imported into this country.

CHAPTER X

CAGES, AVIARIES, AND UTENSILS

THE best type of cage in which to keep any kind of hybrid is undoubtedly that known as the "box" cage, in which only the front is wired and the rest wood. In these the bird's plumage keeps cleaner and in more perfect condition, for with a minimum of wire-work they offer less encouragement to birds of playful disposition to fly up and cling to it ; they also afford better protection from draughts. The plainer these cages are the better ; so long as they are neatly put together and well jointed, this is all that is really necessary.

Such cages offer less harbourage to insect pests such as red mite, that enemy to the bird's health and plumage. Badly jointed wooden cages and fancy wire cages with hollow bars give open invitations to such pests, and have caused the loss of many a valuable bird. If the cage I recommend be nicely mahogany stained and polished outside, and the inside given two coats of sky blue or hedge-sparrow-egg blue enamel, it looks exceedingly smart and neat, and is at the same time a wholesome, sanitary home for the birds, in which they can enjoy their life in comfort and happiness. Where a number of birds are kept their cages of this uniform pattern and colour have a very pleasing effect. If preferred, the outside of the cages can be treated with black enamel,

POPULAR CAGE BIRDS

but the inside should either be done with the blue colours mentioned or white.

A very good size for a cage in which to keep a single hybrid is 20 inches long, 14 inches high, and 10 inches deep from back to front. This will accommodate in comfort any of the various kinds of hybrids. For the smaller hybrids, such as the siskin and red-poll crosses, a cage 18 inches long may be allowed, but the other measurements should be as stated.

Breeding Cages for Hybrids.—I recommend the use of the wooden box cage, with the wire front, for this purpose also. It should be 40 inches long, 15 inches high, and 10 or 11 inches deep from back to front, with a movable partition in the centre. This double cage has a great advantage in hybrid breeding, as when the hens are about to lay many cock British birds are inclined to interfere with the eggs or pull the nest about. In this event all that is necessary is to shut the cock bird off each night by means of the partition. In the morning the egg can be secured and the partition withdrawn, and the two birds allowed to be together for the day. The cock bird is shut off each night until the hen has laid her full complement of eggs—four or five, as a rule—when the eggs are placed in the nest and the cock excluded entirely while the hen hatches and rears the brood. When an egg is removed it is advisable to place a china or bone “dummy” egg in the nest. When the clutch is complete the “dummies” are, of course, taken away.

If space is at a premium, single breeding cages can be used. They should be at least 22 or 24 inches long, 15 inches high, and 10 inches deep from front

CAGES, AVIARIES, AND UTENSILS

to back, but even when these are used it will be necessary to run out a troublesome cock bird into another cage each evening while the hen is laying.

Show Cage for Hybrids.—The show cage is much smaller than the one the bird lives in. It is of the same box pattern, and is 12 inches long, 10 inches high, and 6 inches deep from back to front. A cage of this size shows a bird's good qualities off to greater advantage than a larger one, and allows them ample room for the period of the exhibition. In all instances the outside—including the wires—should be enamelled black, and the inside sky blue or hedge-sparrow-egg blue. This cage and these colours are suitable for all the hybrids dealt with in this book, whether canary crosses or those bred from two British birds.

Living Cages.—The living cage for thrushes and birds of similar size should be of the same box pattern, 30 to 36 inches long, 15 or 16 inches high, and 12 or 14 inches deep from back to front. The wires of the front should be from $\frac{1}{4}$ to 1 inch apart; this gauge of wiring shows these larger birds off to greater advantage than the closer wired front necessary for the smaller birds. The food and water vessels should be of glass or glazed earthenware, and hung in a wire frame on the inside of the bottom front wooden crossbar of the cage. To allow of this there should be small doors at each end of this bar, with the wire frame for the vessels fixed in them on *the inner side*. Cage makers are quite familiar with this arrangement, and it is the best and most sanitary method of giving



Open Top
Round Glass
Drinking
Vessel.

POPULAR CAGE BIRDS

the food and water, while there is no need to fluster the birds by putting one's hand into the cage. There should be two perches resting on the middle cross-bar, 12 inches apart, and just sufficiently thick to enable the birds to grasp them with ease. This space between each perch affords the bird excellent exercise.

The colour of the cage preferably should be black enamel outside and white enamel inside. Show cages for these birds, if it is desired to exhibit them, should be of the same box pattern with similar gauge wiring, 20 inches long, 16 inches high, and 10 inches deep from back to front. Such a cage shows off thrushes, black-birds, starlings, and birds of similar size to the best advantage. The colours should be black enamel outside, wires included, and hedge-sparrow-egg blue inside.

Cages for Smaller Birds.—Cages for the insectivorous birds, such as the nightingale, blackcap, and birds of similar size should be of the same box pattern, about 22 inches in length, 14 inches high, and 10 inches deep from front to back; with the wires of the front $\frac{1}{8}$ inch apart. The food and water vessels should be arranged as described for the thrush cage. Two perches should rest on the middle cross-bar about 8 inches apart, and should be sufficiently thick to enable the birds just to get their toes round and grip with ease.

All perches for these and other birds should be made of soft yellow pine, as this is better than hardwood for keeping their feet in good order.

The outside of these cages can be mahogany colour polished or black enamel, whichever is preferred; the inside should be enamelled white.

CAGES, AVIARIES, AND UTENSILS

If it is desired to show this class of bird the cage for the purpose is of the same design but of smaller dimensions : 16 inches long, 12 inches high, and 8 inches deep from back to front. The feeding and perching arrangements should be as in the living cage, except that the perches should be only 6 inches apart ; colour, black enamel outside, creamy white inside.

For the smaller insectivorous birds such as the wren, goldcrest and tits, the living cage need not be quite so long ; 18 inches is ample length, but they require to be a little more lofty, 16 inches high, and 10 inches deep from back to front. The wiring of the fronts must be a narrower gauge, $\frac{1}{2}$ inch apart. The food and water vessels should be arranged inside, and the same colours can be applied both inside and outside. Thin branches of fir are preferable as perches for these birds, and they should also be provided with a small warm receptacle in the cage, in which to sleep, arranged well up to the top at one end ; small husks or sleeping baskets are procurable at most bird shops.

The show cage for these birds should be the same in all respects except size, which should be 14 inches long, 13 inches high, and 8 inches deep from back to front ; colour, black enamel outside and white inside for the wrens ; pea green inside for the tits, and for both the fir twigs are preferable as perches, which may be arranged at varying heights.

Living Cage for Wagtails.—The living cage for wagtails, pipits, and woodlarks should also be all wood except the front wire ; for the pipits 22 inches long ; and for wagtails 26 inches. Both should be 14 inches high and 10 inches deep back to front, with

POPULAR CAGE BIRDS

a wire front of $\frac{3}{4}$ inch gauge ; three perches should be arranged about 2 inches from the floor of the cage, resting on top of the bottom cross-bar and about 6 inches apart. These birds like to step up on to and over the perches. The food and water vessels should be arranged inside as before described. The cage should be black enamel outside and grass green inside. A shallow zinc pan, say 6 inches square and $1\frac{1}{2}$ inches deep, containing water, stood in the wag-tails' cage for them to paddle in, is one of their delights. The water, of course, must be changed daily. It is advisable to have a zinc sand-tray, as a wooden one will rot with the continual moisture from the birds' feet.

Show cages for these birds are the same pattern, but smaller. For wagtails, 18 inches long ; pipits, 15 inches ; in both instances they should be 9 inches high and 8 inches deep, and of the same colour as the living cage.

Cage for Skylark and Shorelark.—The skylark and shorelark may have a similar shaped cage, but with no perches—what are called “runner” cages ; or they can be of the same shape with a half circle projecting as a bow in the centre of the front, used as a place for a clover turf, which these birds enjoy much ; a fresh turf should be given at least once a week—twice for preference. The cage should be 20 inches long, 10 inches high, and 10 inches deep from back to front, the bow for the turf being about 7 inches long and 5 inches deep in the centre, gradually tapering off at the ends.

For these birds the food and water vessels are best arranged outside, allowing them to feed through

CAGES, AVIARIES, AND UTENSILS

round holes in the wire front. The $\frac{3}{4}$ inch gauge wiring answers well, and the colour should be mahogany polished or black enamel outside, and white, with just a tint of salmon, inside.

The show cage should be of the same pattern, but smaller: 15 inches long, 9 inches high, and 8 inches deep.

Living Cage for Finches.—The living cage for finches and birds of similar size—excepting the hawfinch, crossbill, and corn bunting—should be of the box pattern, with a wire front of $\frac{5}{8}$ inch gauge; 15 inches long, 12 inches high, and 8 inches deep back to front, with food and water vessels arranged outside as for larks. Two perches should be provided 6 inches apart, to rest on the middle cross-bar; mahogany colour or black enamel outside, and hedge-sparrow-egg blue enamel inside.

For the hawfinch, crossbill, and corn bunting the cage should be of the same pattern, but 18 inches long, 12 inches high, and 10 inches deep. That for the crossbill should be lined inside with sheet zinc to protect the wood from the mischievous destruction wrought by this bird's formidable beak. The colour outside should be the same as for other finches, and the same inside for the hawfinch and corn bunting; no colour is required over the zinc in the crossbill's cage.

Show cages for the above species should be of the same pattern, but smaller; for the goldfinch and birds of similar size they should be 12 inches long, 10 inches high, and 6 inches deep back to front; this size serves well for the smaller finches, such as the siskin and redpoll. The colour should be black enamel outside,

POPULAR CAGE BIRDS

holly or brunswick green inside. For the buntings—except the corn bunting—the length should be 14 inches, with other measurements the same; the colour outside black enamel, and royal blue inside. The show cage for the hawfinch, crossbill, and corn bunting should be 15 inches long, with other measurements as for other buntings; black enamel outside and holly green inside.

Living Cages for Choughs, etc.—The living cage for choughs, jays, and birds of similar size should be box pattern, from 3 feet to 4 feet long, 20 inches high, and 18 inches deep. The wires for the front should be stouter than that used for the smaller cages and 1½ inches apart. They should be black enamel outside and sky blue inside. The food and water vessels should be arranged outside. There should be two perches, about 12 inches apart, resting on the front middle cross-bar, sufficiently thick to enable the birds to grasp them easily.

Show cages for these and similar birds should be of the same pattern: 30 inches long, 20 inches high, and 15 inches deep. All should be black enamel outside and sky blue inside, for choughs and magpies; for jackdaws and jays, creamy white.

All these birds make charming pets kept in a small aviary in the garden, and become quite as tame and affectionate as when kept in a cage.

Living Cages for Foreign Insectivorous Birds.—The living cage for such foreign birds as the shama should be of the box pattern, 36 inches long, 15 inches high, and 12 inches deep front to back, with food and water vessels arranged inside. As for the British insectivorous birds, the sand-trays should be made

CAGES, AVIARIES, AND UTENSILS

of zinc, as the excreta of all insectivorous and fruit-eating birds is very moist, and wooden sand-trays quickly become foul and sour. They should have two perches resting on the middle cross-bar about 12 inches apart. The outside should be black enamel or mahogany polish, the inside enamelled stone grey.

Suitable cages in which to exhibit such birds are of the same pattern and colour, 24 inches long, 15 inches high, and 10 inches deep. This size makes an excellent living cage for tanagers, sugar birds, Pekin nightingales, and the smaller insectivorous and fruit-eating birds, while the show cage for such should be 16 inches long, 13 inches high, and 8 inches deep, and of the same colour as the living cage.

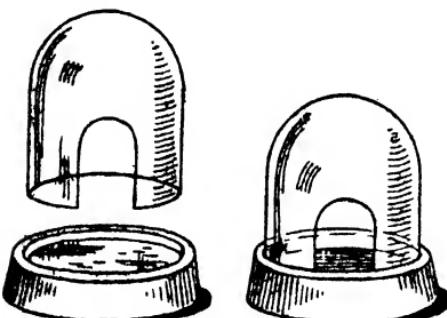
Living Cages for Foreign Seed-eaters.—The living cage for the foreign seed-eaters dealt with in this book, should be of the box pattern, 20 to 24 inches long, 14 inches high, and 10 inches deep from back to front ; the wiring of the fronts for such as parrot-finches and weavers should be $\frac{1}{8}$ inch gauge, for the smaller waxbills $\frac{1}{4}$ inch. They should be either black enamel or mahogany polished outside, and for the more brightly coloured birds, creamy white enamel inside ; for the duller or darker plumaged birds grass-green. There should be two perches, 6 inches apart, resting on the middle cross-bar, and the food and water vessels should be outside ; the feeding-holes must be only just of sufficient size to permit the birds to pass their heads through, so as to prevent any possible chance of escape. The show cages should be of similar pattern, but smaller—12 inches long, 10 inches high, and 6 inches deep

POPULAR CAGE BIRDS

back to front ; the colour and wiring should be as for the living cage.

Aviaries.—Where it is desired to keep the birds in outdoor aviaries, the size can be arranged according to the space at command, but in all cases an open flight should be provided, consisting of $\frac{1}{2}$ -inch mesh wire netting and made thoroughly proof against rats, mice, etc. In an aviary where the netting comes right down to the ground the netting should be sunk

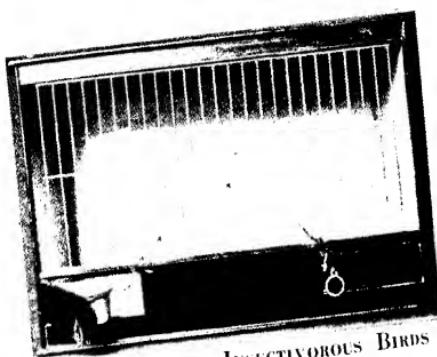
8 or 10 inches below the surface to prevent the inroad of vermin. Some have a concrete floor and a surround of brick or concrete 12 or 18 inches high ; in such a case the wirework must be carefully and securely fixed to the top of the surround.



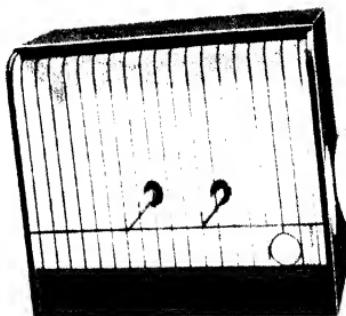
Hygienic Glass Water Vessel for use in Aviaries.

Weather-proof covered-in sleeping quarters should adjoin every flight.

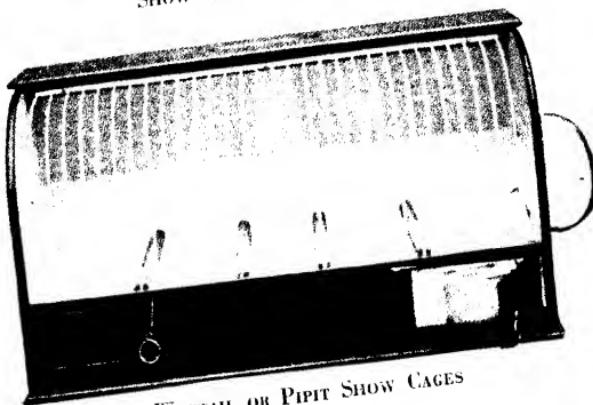
Floor space in an aviary should always have greater consideration than height ; 6 to 8 feet is quite high enough for any flight. The aviary itself may be either of the lean-to or Gothic type, but in any case a sheltered position should be selected with the exposed parts facing south or south-west. If a good-sized window can be constructed in one side of the sleeping quarters it will be especially beneficial to the birds during the dark, dreary months, by affording them light to feed and exercise in their sleeping



SHOW CAGE FOR INSECTIVOROUS BIRDS



SHOW CAGE FOR FINCHES



WAGTAIL OR PIPIT SHOW CAGES

CAGES, AVIARIES, AND UTENSILS

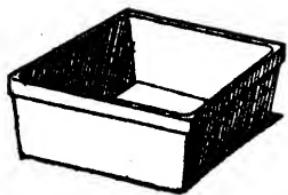
quarters without being forced to exposure in the open flight during inclement weather.

In the case of indoor aviaries, there is more opportunity to indulge in beautiful and artistic designs.

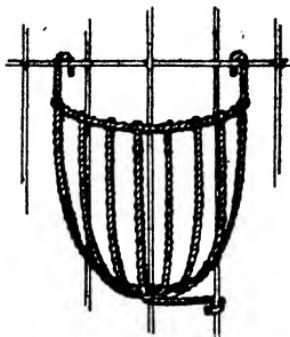
Nests for Breeding-cages. — There is nothing better than the round earthenware nest-pan, lined with swansdown, hung in the centre or at one end of the back of the cage. Round wire brackets in which to hang these nests are supplied with them. For aviaries, the small wicker cage in which roller canaries are imported serve excellently for the birds to build their nests in; the wickers should be removed from one end to enable the birds to pass in and out. In an aviary where privet or other evergreen bushes grow in the flight, many of the birds will choose these as nesting-quarters, and will construct their nests as in their wild state.

A liberal amount of building material must be supplied to all birds, whether hybrid pairs, British or foreign, paired-up for breeding. Dried moss, meadow hay, doe's hair (commonly called "cow-hair"), dried bents and grasses, are all good for this purpose.

Cage Utensils. — Egg - food and insectivorous food should always be given to birds in



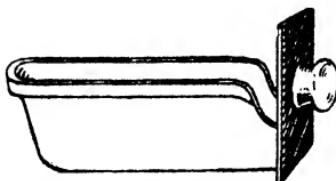
White Earthenware Basin
for Bath Cages.



Wire Rack for Building
Material.

POPULAR CAGE BIRDS

glazed earthenware, or glass vessels; it keeps sweeter than in those of tin or zinc. There are



Earthenware Egg-food Drawer.

many designs of baths for aviary use, and the selection can be left to individual taste, but they must be easily cleaned, not too deep, say $1\frac{1}{2}$ inches, and of sufficient dimensions to

allow the birds to have a good dip. For cage use the bath should always be of the type that can be hung in front of the open cage-door.

INDEX

ALAUDIDÆ, family, 81
"Ants' Eggs," as food, 27, 35, 41, 49, 53, 54, 56, 59, 84, 86, 89
Aviaries, floor space in, 106; outdoor, 106

BATH, for wagtails, 102; importance of, 25, 27, 29, 32, 36, 42, 55, 59, 65, 71, 79; varieties of, 108
Berries, as food, 12, 27, 31, 32, 34, 48, 66, 73
Blackbird, 31
Blackcap, 47
Black-headed Sibia, 88
Blue Throat, red-spotted, 38
"Bramble Finch," 69
Bramblefinch-Chaffinch, 22
Brambling, 69
Breeding, hybrids, 3, 5, 6, 7, 9, 11, 12, 15, 16, 18, 19, 20
Breeding cages, nests for, 107
British birds, hand rearing of, 43
British hybrids, 11 *et seq.*
Building materials, 107
Bullfinch, 72; in hybrid breeding, 12
Bullock's-liver: food for Blue Throat, 39; food for Chough, 79
Bunting, Cirl, 75; Corn, 74; cage for, 103; Indigo, 95; Lapland, 77; Nonpareil, 94; Reed, 76; Snow, 76; Yellow, 75
Burdock, seed-head of, as food, 12

CAGE, "box," 97, 104, 105; breeding, for hybrids, 98; colours for, 97, 98, 99, 100, 101, 103, 104, 105; for choughs, 104; finches, 103; insectivorous birds, 100; larks, 102; living, 99; nightingale, 36; "runner," 102; single, 98; size of, 98; thrushes, 99; wagtails, 101
Canary, as foster-mother, 13, 15, 17, 18, 20, 21
Canary-Bullfinch, 9
Canary hybrids, 1-10
Chaffinch, 68
Chiff-Chaff, 51
Chough, 79; cages for, 104
Cleanliness, importance of, 27, 33, 42, 56
Colour food, 3, 18, 19
Cordon Bleu, 92
Crossbill, 74; cage for, 103
Currants, for thrushes, 27, 31

DANDELION, seed-heads of, as food, 2, 3, 67
Dock, seed stalks of, as food, 9
"Dummy eggs," use of, 98

EARTHENWARE for cage utensils, 107
Egg-food, 3, 5, 7, 9, 10, 15, 44

FEEDING, British birds, 27-83; foreign birds, 84-96; hybrids, 2-25
Fieldfare, 30

INDEX

Finch and Canary Hybrids,
i et seq.

Finch, black-faced Gouldian,
91; Melba, 89; parrot, 89
pin-tailed nonpareil, 91;
red-faced, 90; red-faced
Gouldian, 90

Finches, British, 64 *et seq.*;
living cage for, 103; show
cage for, 103

Fly-catchers, 63

Food vessels, 99

Foreign birds, 84; insectivorous
and fruit-eating, 84 *et seq.*;
small seed-eating, 89 *et
seq.*; cages for, 104, 105

Fruit buds, as food, 10, 13

Fruit Sucker, Green, 86

GENTLES, as food, 35, 37, 41,
44, 49, 57, 87, 95; how
to clean, 35, 37

Gold Crests, 56

Golden Oriole, 82

Goldfinch, 66

Goldfinch-Bullfinch, 11

Goldfinch-Canary, 1

Goldfinch-Greenfinch, 17

Goldfinch-Linnet, 20

Goldfinch-Siskin, 17

Greenfinch, 64

Greenfinch-Bullfinch, 13

Greenfinch-Canary, 5

Greenfinch-Chaffinch, 22

Green food, 2, 5, 12, 16, 73
"Ground-walkers," 78

HAND-REARING, British birds,
43

Hawfinch, 65; cage for, 103

Hedge-sparrow, 53

Hybrid-breeding, uncertainties
of, 1, 3

Hybrids, breeding cages for,
98, 99; show cages for, 99

INDIAN White-eye, 87

Insectivorous birds, cages for,
100, 101;

JACKDAW, 79
"Japanese Robin," 87

Jay, 79

KNAPWEED, seed-heads of, as
food, 67

LETTUCE, seed-heads of, 13

Linnet, 70

Linnet-Bullfinch, 14

Linnet-Canary, 4

Linnet-Greenfinch, 22

Linnet-Redpoll, 23

Linnet-Siskin, 24

MAGPIE, 79

Meal-worm, as food, 9, 10, 14,
15, 16, 21, 30, 36, 41, 57,
65, 66, 67, 68, 73, 78, 87,
92, 94, 95

Mistle-thrush, 26

"Mountain Finch," 69

"Mountain Linnet," 72

NESTLINGS, how to feed, 44

Nest-pan, earthenware, 107

Nests for breeding cages, 107

"Nettle Creeper," 46

Nightingale, 35; Pekin, 87

Norwich Canary, in hybrid-
breeding, 3, 6, 8, 10

"PEKIN ROBIN," 87

Perches, 100, 101

Pipit, Tree, 61; Meadow, 62;
Rock, 62

Plantain, as food, 3, 67, 73

RED MITE, 97

Redpoll-Bullfinch, 15

Redpoll-Canary, 8

Redpoll-Goldfinch, 18

Redpoll-Greenfinch, 21

Redpoll Lesser, 71; Mealy, 71

INDEX

Redpoll-Siskin, 22
Redstart, 41; Black, 42
Redwing, 29
Reedling, Bearded, 53
Ring Ouzel, 33
Robin, 34
"Robin, Japanese," 87; "Pekin," 87

SAND-TRAY, zinc, 102
Seed-heads, as food, 2, 3, 8, 10, 12, 16, 18, 19, 65, 68, 70, 73, 75, 89, 91, 93, 94, 95
Shama, 84
Shell-fish, food for chough, 79
Shepherd's Purse, as food, 3, 67, 71, 73
Shorelark, 82; cage for, 102
Shrikes, 63
Siskin, 67
Siskin-Canary, 7
Siskin-Greenfinch, 21
Skylark, 81; cage for, 102
Snails, for thrushes, 27, 30
Song Thrush, 28
"Spectacled Bird," 87
Spiders as food, 78, 85, 92, 94
Starling, common, 78
Sugar-bird: blue, 84; yellow-winged, 85
Sunflower seeds, as food, 9, 12, 14, 15, 16, 18, 21, 65, 68, 71, 73

TANAGER, superb, 85; scarlet, 86; violet, 86
Teazle Seed, as food, 3, 8, 6, 15, 18, 19, 65, 68, 70, 71, 73
Thrush, living cage for, 99; show cage for, 100

Thrushes, 26 *et seq.*,
Tit, bearded, 53
"Tit-lark," 61, 62
Tit, long-tailed, 55
Tits, family of, 55
Tree Creeper, 63
Turf for lark's cage, 81, 102
Twite, 72
Twite-Canary, 8
Twite-Greenfinch, 24

WAGTAIL, blue-headed, 60; grey, 59; pied, 58; white, 59; yellow, 60
Wagtails, bath for, 102; living cages for, 101; show cages for, 102
Warbler, Dartford, 49; garden, 49; reed, 53; sedge, 53; willow, 52; wood, 52
Wasp-grub, as food, 16, 47
Water-vessels, 99
Waxbill, crimson-winged, 93; green Amaduvade, 93; violet-eared, 92
Waxwing, 63
Weaver, Grenadier, 94; Napoleon, 94
Wheatear, 39
Whinchat, 40
Whitethroat, 46; lesser, 47
Woodlark, 81
Woodpeckers, 83
Wren, common, 58; fire-crest, 57; golden-crested, 56; grasshopper, 53; "willow," 52
Wryneck, 82

"YELLOW-HAMMER," 75

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